



Ikhtisar Kinerja Keberlanjutan

Sustainability Performance Highlights



Aspek Ekonomi Economic Aspect

[POJK51-2.a.1][POJK51-2.a.2]
[POJK51-2.a.3][POJK51-2.a.5]

Uraian Description	Satuan Unit	2020	2019	2018
Kinerja Produksi Production Performance				
Produksi Nikel dalam <i>Matte</i> Nickel in Matte Production	Ton	72,237	71,025	74,806
Cadangan Bijih Nikel Terbukti Proven Ore Reserves	Juta Ton (DKP) Million Tons (DKP)	61.9	66.2	101.8
Cadangan Bijih Nikel Terkira Probable Ore Reserves		42.1	41.4	14.7
Kinerja Ekonomi Economic Performance				
Pendapatan Revenue	Ribu USD Thousand USD	764,744	782,012	776,900
Total Distribusi Nilai Ekonomi Total Economic Value Distribution		730,410	(815,864)	(671,960)
Total Nilai Ekonomi Ditahan Total Economic Value Retained		38,806	(29,093)	109,492
Laba Bersih Net Profit		82,819	57,400	60,512
Pelibatan Pemasok Lokal Involvement of Local Suppliers				
Jumlah Pemasok Lokal Number of Local Suppliers	Unit	295	295	295



Aspek Sosial Social Aspect

[POJK51-2.c]

Jenis Kontribusi Contribution Type	Satuan Unit	Jumlah Total	Penerima Manfaat Beneficiaries
Kontribusi untuk Penanganan COVID-19 Contributions for Handling COVID-19			
Bantuan <i>Rapid Test Kits</i> Rapid Test Kits Assistance	Unit	260,000	Karyawan, Masyarakat Employees, Communities
Bantuan Peralatan untuk Tenaga Kesehatan Equipment Assistance for Health Workers	Unit	183,839	Rumah sakit Hospitals
Bantuan Disinfektan Disinfectant Aid	Liter	4,291	Karyawan, Masyarakat Employees, Communities
Bantuan <i>Medical Bed</i> Medical Beds Assistance	Unit	23	Rumah sakit Hospitals
Bantuan Ambulans Ambulance Assistance	Unit	4	Rumah sakit Hospitals
Ventilator	Unit	4	Rumah sakit Hospitals

Tanpa Pemutusan
Hubungan Kerja
Without Termination
of Employment



Tidak ada pemutusan hubungan kerja (PHK) terhadap karyawan PT Vale, akibat dampak COVID-19. Perseroan tetap melakukan kegiatan operasi dan produksi, dengan protokol kesehatan ketat.

There were no layoffs of PT Vale employees due to the impact of COVID-19. The Company continues to carry out operations and production activities, with strict health protocols.





Aspek Sosial Social Aspect

[POJK51-2.c]

Uraian Description	Satuan Unit	2020	2019	2018
Jumlah Karyawan dan Pelatihan Total Employees and Training				
Total Karyawan Total Employees	Orang People	3,006	3,044	3,092
Total Jam Pelatihan Total Training Hours	Jam Hours	153,990	193,280	123,393
Jam Pelatihan per Karyawan Training Hours per Employee	Jam/Orang Hours/Person	35	42	40
Uraian Description	Satuan Unit	2020	2019	2018
Keselamatan dan Kesehatan Kerja Occupational Health and Safety				
Jam Pelatihan K3 Per Karyawan Employee OHS Training Hours	Jam Hours	48	16	14
Tingkat Kekerapan Cedera Tercatat Recordable Injury Frequency Rate	%	0.51	0.53	0.51
Jam Kerja Selamat Safe Working Hours	Jam Hours	9,571,366	4,881,030	34,138,226
Kehilangan Hari Kerja Lost Work Days	Hari Days	38	88	0
Uraian Description	Satuan Unit	2020	2019	2018
Program Pengembangan dan Pemberdayaan Masyarakat (PPM) Integrated Community Development and Empowerment Program (PPM)				
Jumlah Program/Kegiatan Number of Programs/Activities	Unit	28	47	20
Jumlah Dana Total Funds	Juta USD Million USD	4.1	3.4	3.0
Perkiraan Jumlah Penerima Manfaat Estimated Number of Beneficiaries	Desa Villages	38	38	38
	Individu Individuals	21,000	38,000	32,000
Donasi dan Pemberian Bantuan Donation and Additional Assistance				
Anggaran Donasi Tambahan di luar Program PPM Additional Donation Budget outside the PPM Program	Ribu USD Thousand USD	79	153	90



Aspek Lingkungan
Environmental Aspect
[POJK51-2.b.1][POJK51-2.b.2]
[POJK51-2.b.3][POJK51-2.b.4]



Uraian Description	Satuan Unit	2020	2019	2018
PROPER				
Peringkat Rating		Biru Blue	Hijau Green	Biru Blue
Kinerja Pengendalian Emisi Emission Control Performance				
Intensitas SO ₂ SO ₂ Intensity	Ton SO ₂ /Ton Ni	0.79	0.72	0.74
Total Emisi GRK* Total GHG Emissions	Ton CO ₂ eq	2,015,952	1,909,279	2,082,580
Pengurangan Emisi Emissions Reduction	Ton CO ₂ eq	(16,716)	173,301	(58,384)
Kinerja Pemanfaatan Energi Energy Used Performance				
Pemakaian Energi Energy Usage	GigaJoule	28,004,485	27,366,791	30,169,150
Intensitas Energi Energy Intensity	GigaJoule/Ton	389.84	323.25	346.10
Intensitas Penggunaan HSFO HSFO Usage Intensity	Barrel/ton	18.14	20.06	20.15
Intensitas Penggunaan Batubara Coal Use Intensity	Ton/Ton Ni	5.90	5.23	5.43
Intensitas Penggunaan HSD HSD Usage Intensity	Liter/Ton Ni	1,046.69	1,209.24	1,041.30
Intensitas Penggunaan Gasoline Gasoline Usage Intensity	Liter/Ton Ni	3.50	5.36	5.28
Intensitas Penggunaan Power (PLTA) Intensity of Power Use (PLTA)	MWh/Ton Ni	33.65	33.08	33.64
Pengelolaan Limbah Waste Management				
Overburden	WMT	40,730,655	42,968,601	40,574,694
Limbah Domestik Non B3* Non-Hazardous Domestic Waste	Ton	479,842	484,791	42,000
Pengelolaan Lahan Land Management				
Luasan Lahan Direhabilitasi Rehabilitated Land Area	Ha	176.24	81.09	93.31
Total Luasan Lahan Direhabilitasi Total Rehabilitated Land Area		3,012.44	4,249.45	4,250.63
Pemanfaatan Energi Terbarukan Renewable Energy Used				
Pembangkit Listrik Tenaga Air Hydroelectric Power Plants	Unit	7	7*	7*
	MW	365	365	365
Keanekaragaman Hayati Biodiversity				
Jumlah Pohon Ditanam Total Trees Planted	Batang/Ha Stem/Ha	104,333	79,372	78,400

*Terdapat restatement data 2019 dan 2018 karena adanya perubahan metode perhitungan dari Laporan tahun sebelumnya [102-48]

*There is a data restatement for 2019 and 2018 due to a change in the calculation method from the previous year's report [102-48]





Aspek Tata Kelola
Governance Aspect
[POJK51-5]

Uraian Description	2020	2019	2018
Penanganan Pelaporan Pelanggaran Melalui VWC Violation Reporting Handled Through VWC			
Jumlah Laporan Diterima Number of Allegations Received	74	50	30
Persentase Laporan Valid Percentage of Valid Allegations	99%	92%	90%
Jumlah Laporan Diterima per Ribuan Karyawan Number of Allegations Received per Thousands Employees	10.1	4.0	5.6



Kebijakan dan Strategi Keberlanjutan

Sustainable Development Policy and Strategy

PT Vale berkomitmen melaksanakan pembangunan berkelanjutan, dan terus berkontribusi pada penguatan aspek sosial, pembangunan kompetensi ekonomi lokal, dan konservasi pelestarian lingkungan. Dalam lima tahun ke depan, Perseroan telah menetapkan prioritas Strategi Utama Keberlanjutan.

PT Vale is committed to implementing sustainable development, and continues to contribute to strengthening social aspects, building local economic competencies, and conserving the environment. In the next five years, the Company has set priorities for its Main Sustainability Strategy.

Prioritas Strategis Strategic Priorities		Target Target
Kontribusi Sosio-Ekonomi Karbon Netral Carbon Neutral Socio-Economic Contribution	<ul style="list-style-type: none">Melaksanakan agenda <i>compliance</i> lingkungan PROPER Hijau, <i>compliance audit</i>, target emisi dan sistem <i>monitoring</i> Implement the Green PROPER environmental compliance agenda, compliance audit, emission targets, and monitoring systemMelaksanakan penghijauan di luar wilayah Implement beyond boundary reforestation	<ul style="list-style-type: none">Membangun <i>roadmap</i> menuju karbon netral Build a roadmap towards being carbon neutralMenyelesaikan agenda sosial: relokasi Dongi dan perambahan lahan Finalize the social agenda: relocation of Dongi and land encroachment
Budaya Kinerja Tinggi High Performance Culture	<ul style="list-style-type: none">Merampungkan <i>succession planning</i> Complete succession planningImplementasi pelatihan IMPACT & <i>role-modeling</i> Implement IMPACT & role-modeling trainingImplementasi Program Pelatihan Supervisor Implement the Supervisor Training ProgramMelaksanakan Pelatihan Karyawan Unggul (PKU) Carry out Superior Employee Training (PKU)	<ul style="list-style-type: none">Mempersiapkan keberagaman dan inklusi Prepare for diversity and inclusionImplementasi program mengatasi masalah kinerja Implement programs to overcome performance problemsMeningkatkan kualitas penerapan VPS Improve the quality of VPS implementation
Terobsesi pada Risiko dan Keselamatan Tanpa N1 dan N2 Obsessed with Risk and Safety Zero N1 and N2	<ul style="list-style-type: none">Menyelesaikan tindak lanjut HIRA dan melaksanakan pengendalian yang kritis Complete the follow-up of HIRA and implement critical controlsMelipatgandakan laporan N3 & Hi-Po non-energy release Reproduce N3 & Hi-Po non-energy release reportsMenggalakkan Golden Rules, INS003 dan RAC/MHS Promote the Golden Rules, INS003, and RAC/MHS	<ul style="list-style-type: none">Menyiapkan Kontrol Operasi Terintegrasi (COI) Set up Integrated Operations Control (COI)Merampungkan program Kesehatan dan perbaikan fasilitas Complete the Health program and facilities repair
90KT Sorowako 70KT Bahodopi 40KT Pomalaa	<ul style="list-style-type: none">Meningkatkan kualitas bijih dengan mengurangi dilusi dan kadar air Improve ore quality by reducing dilution and moisture contentMengurangi variabilitas operasi – <i>kiln standby</i> dan stabilitas suplai daya Reduce operating variability - kiln standby and stability of the power supplyMerampungkan program <i>Continuous Improvement (CI) process plant</i> dan sinkronisasi <i>mass-balance</i> Complete the Continuous Improvement (CI) process plant and mass-balance synchronization program	<ul style="list-style-type: none">Merampungkan studi Sorowako RKEF Complete the Sorowako RKEF study
Integritas Aset dan Ketaatan Pemeliharaan Asset Integrity and Maintenance Adherence	<ul style="list-style-type: none">Implementasi <i>Zero-Based Maintenance</i> Implement Zero-Based MaintenanceMerampungkan program Integritas Aset dari <i>assessment 2012</i> Complete the Asset Integrity program from the 2012 assessment	<ul style="list-style-type: none">Implementasi <i>immersion</i> untuk meningkatkan sinergi <i>supply chain & maintenance</i> Implement immersion to improve supply chain & maintenance synergy



Sebagai bagian dari Vale Global, PT Vale mendukung pencapaian Agenda 2030, yakni menjadi operator berkelanjutan, katalisator pembangunan lokal, dan agen keberlanjutan global. Tujuan-tujuan Keberlanjutan pada Agenda 2030 mendukung pencapaian Tujuan Pembangunan Berkelanjutan (TPB). PT Vale telah menetapkan Strategi Keberlanjutan yang mendukung Agenda Vale Global 2030 pada komitmen perubahan iklim, energi, air, hutan, kontribusi sosial, dan celah lingkungan, sosial dan tata kelola (LST) sebagai langkah transisi ke penambangan karbon netral.

As part of Vale Global, PT Vale supports the achievement of the 2030 Agenda, namely becoming a sustainable operator, a catalyst for local development, and a global sustainability agent. The Sustainability Goals in the 2030 Agenda support the achievement of the Sustainable Development Goals (SDGs). PT Vale has established a Sustainability Strategy that supports the Vale Global 2030 Agenda on commitments to climate change, energy, water, forests, social contributions, and environmental, social and governance (ESG) gaps as a transition step to carbon neutral mining.

Strategi Keberlanjutan Sustainability Strategies

"Mendorong pembangunan berkelanjutan di wilayah dan meningkatkan reputasi Vale di hadapan masyarakat."

"Foster sustainable development in the territories and improve Vale's reputation before society."

Panduan Prinsip | Guiding Principles

Induksi rantai karbon rendah
Induction of a low carbon chain

Pembentukan nilai bersama
Shared value generation

Pengembangan territorial
Territorial development

Kepercayaan dan kredibilitas
Trust and credibility

- **Transparansi dan mendengarkan**
Transparency and listening
- **Ketangkasan respons**
Response agility
- **Proses partisipatif**
Participatory processes
- **Mewujudkan pandangan yang berbeda**
Embody different views
- **Menemukan jalur konvergen**
Find converging paths

KPI yang jelas dan terukur
Clear and measurable KPIs

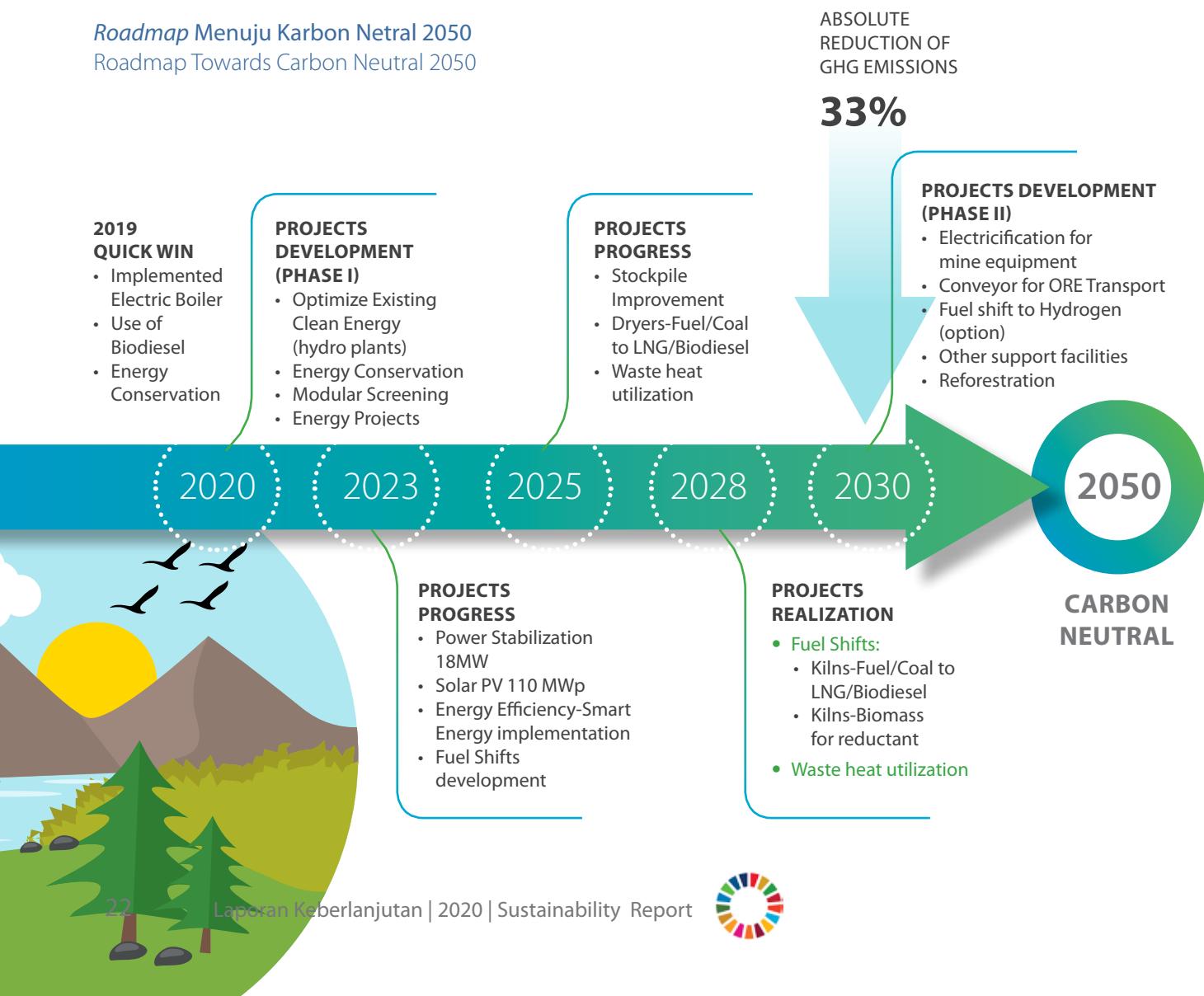
Agenda 2030 Vale Global

Vale Global's 2030 Agenda

 <p>PERUBAHAN IKLIM CLIMATE CHANGE</p> <p>Mengurangi gas rumah kaca emisi selaras dengan Perjanjian Paris dan menjadi karbon netral pada tahun 2050.</p> <p>Reduce greenhouse gas emissions aligned with the Paris Agreement and be carbon neutral by 2050.</p> <p>Target Baru New Target</p>	 <p>ENERGI ENERGY</p> <p>100% menghasilkan sendiri energi bersih secara global</p> <p>100% self-generation of clean energy globally</p> <p>Target Baru New Target</p>	 <p>AIR WATER</p> <p>Mengurangi pengumpulan air baru sebesar 10%</p> <p>Reduce new water collection by 10%</p>
 <p>HUTAN FOREST</p> <p>Memulihkan dan melindungi 500.000 ha lahan kritis lintas batas.</p> <p>Recover and protect 500,000 ha of degraded land beyond our boundaries</p> <p>Target Baru New Target</p>	 <p>KONTRIBUSI SOSIAL EKONOMI SOCIOECONOMIC CONTRIBUTION</p> <p>Perawatan kesehatan, pendidikan, dan pendapatan.</p> <p>Health care, education and income generation</p>	 <p>CELAH LST ESG GAPS</p> <p>Menghilangkan celah LST utama dalam kaitannya dengan praktik terbaik</p> <p>Eliminate main ESG gaps in relation to best practices</p> <p>Target Baru New Target</p>

Roadmap Menuju Karbon Netral 2050

Roadmap Towards Carbon Neutral 2050





Strategi dan Komitmen Keberlanjutan Vale Global

Vale Global's Sustainability Strategy and Commitment

Lingkungan, Sosial dan Tata Kelola (LST)

Vale terus berupaya untuk meningkatkan komunikasi dan keterlibatan dengan Pemegang Saham. Program keterlibatan investor telah dikembangkan dengan membuka dan mendengarkan dari berbagai perspektif, kami terus mengembangkan praktik dengan cara terbaik untuk mendukung bisnis dan budaya Perusahaan.

Environmental, Social and Governance (ESG)

Vale is exploring ways to improve shareholder communications and engagement. Our investor engagement program has evolved and by opening up and listening to a wide range of perspectives, we are developing practices in a manner that best supports our business and our culture.



Vale berkomitmen untuk mengintegrasikan keberlanjutan ke dalam bisnisnya dengan membangun warisan ekonomi, sosial dan lingkungan yang kuat dan positif serta mengurangi dampak operasinya.

Oleh karena itu, kami berupaya membangun hubungan yang kuat dengan pemangku kepentingan, berinvestasi dalam mengurangi dampak aktivitas, bekerja dengan standar etika yang tinggi, memiliki manajemen yang transparan, dan secara aktif berkontribusi pada kemajuan terkait lingkungan, keanekaragaman hayati, dan pembangunan berkelanjutan.

Strategi Kami

Pilar strategis Perusahaan berkontribusi untuk mencapai misi kami: mengubah sumber daya alam menjadi kemakmuran dan pembangunan berkelanjutan.

Pilar strategi baru

- **Keselamatan dan keunggulan operasional**

Mengubah cara beroperasi terkait dengan tiga tema yang saling terkait: (i) manajemen keselamatan dan risiko, (ii) manajemen aset, dan (iii) organisasi, proses, dan budaya melalui *Vale Production System* (VPS).

- **Pakta baru dengan masyarakat**

Memberikan dampak positif bagi masyarakat, *beyond compliance* terhadap pajak, proyek sosial, dan reparasi dengan menjadi pendukung pembangunan di wilayah operasi dan mendorong industri pertambangan yang lebih aman dan berkelanjutan.

- **Transformasi Base Metals**

Mengikuti transformasi unit bisnis *Base Metals*, menerapkan praktik terbaik di seluruh operasinya.

- **Disiplin dalam alokasi modal**

Menetapkan fokus pada penciptaan nilai dan keamanan aset, berinvestasi dalam keberlanjutan produksi dan dalam melindungi serta meningkatkan margin.

Vale is committed to integrating sustainability into its business by building a strong and positive economic, social and environmental legacy and mitigating the impacts of its operations.

Therefore, we seek to build strong and lasting relationships with our stakeholders, invest in mitigating the effects of our activities, work with high ethical standards, have transparent management and actively contribute to advances related to the environment, biodiversity and sustainable development.

Our Strategy

Our strategic pillars contribute to achieving our mission: to transform natural resources into prosperity and sustainable development.

New strategic pillars

- **Safety and operational excellence**

To transform the way we operate with regard to three interconnected themes: (i) safety and risk management, (ii) assets management, and (iii) organization, processes and culture through the VPS (Vale Production System).

- **New pact with society**

To positively impact society, going beyond taxes, social projects and reparation, by becoming a development enabler in the areas where we operate and fostering a safer and more sustainable mining industry.

- **Base Metals transformation**

To keep on track with the transformation of the Base Metals business unit, applying best practices throughout all its operations.

- **Discipline in capital allocation**

To keep focus on value creation and the safety of assets, investing in the sustainability of production and in protecting and increasing margins.

Komitmen Kami

- **SUMBER DAYA MANUSIA.** Dalam mengambil keputusan bisnis, Kami mengutamakan keselamatan manusia dan lingkungan, bertindak dengan rasa hormat, perhatian, dan integritas. Membangun warisan sosial, ekonomi, dan lingkungan yang positif di wilayah operasional.
- **KESELAMATAN.** Menjadikan Vale sebagai salah satu perusahaan pertambangan teraman dan paling andal di dunia.

Komitmen 2030

Menjadi operator berkelanjutan, katalis pembangunan lokal, dan agen keberlanjutan global. Sasaran keberlanjutan global yang sejalan dengan Tujuan Pembangunan Berkelanjutan (TPB) dari Agenda 2030 Perserikatan Bangsa-Bangsa.

Dukungan pada TPB dan Pengelolaan Tambang Berkelanjutan

Support for SDGs and Sustainable Mining Management

Komitmen pada keberlanjutan menjadi dukungan PT Vale terhadap pencapaian Tujuan Pembangunan Berkelanjutan (TPB). Penerapan komitmen pada keberlanjutan disinergikan dengan pengelolaan tambang berkelanjutan, sesuai kerangka kerja International Council on Mining and Metals.

Dukungan pada TPB

PT Vale melalui Indonesia Business Council for Sustainable Development (IBCS), juga turut serta dalam merancang dokumen kontribusi bisnis dalam mendukung TPB. Kami fokus pada tujuh tujuan, yakni Tujuan 3, 5, 7, 11, 13, 16, dan 17, sejalan dengan praktik-praktik terbaik yang dimiliki.

Our Commitments

- **PEOPLE.** In our business decisions, prioritize the safety of people and the environment, acting with respect, care and integrity. Build a positive social, economic and environmental legacy where we operate.
- **SAFETY.** Make Vale one of the safest and most reliable mining companies in the world.

2030 Commitments

Be a sustainable operator, local development catalyst, and global sustainability agent. Our global sustainability goals are in line with the Sustainable Development Goals (SDG) of the United Nations 2030 Agenda.

Our commitment to sustainability reflects PT Vale's support for the achievement of the Sustainable Development Goals (SDGs). The implementation of this commitment to sustainability is synergized with sustainable mining management, in accordance with the framework of the International Council on Mining and Metals

Support for SDGs

PT Vale, through the Indonesia Business Council for Sustainable Development (IBCS), has also contributed to crafting documents on private sector contributions to achieving the SDGs. We focus on seven objectives, namely Goals 3, 5, 7, 11, 13, 16, and 17 in line with our best practices.



Dukungan pada Tujuan Pembangunan Berkelanjutan

Support for the Sustainable Development Goals



PROGRAM | PROGRAM

Pertanian Berkelanjutan dan Ramah Lingkungan
Sustainable and Environmentally Friendly Agriculture

TARGET | TARGET

Menciptakan sistem pertanian terpadu yang mengedepankan praktik budidaya terbaik (*Good Agricultural Practices*) dengan tetap menjaga keseimbangan ekologi dan menghindari penggunaan pestisida atau pupuk kimia yang beresiko terhadap rusaknya struktur dan kesuburan tanah serta mata rantai makanan.

Create an integrated farming system that promotes Good Agricultural Practices through maintaining ecological order and avoiding the use of pesticides or chemical fertilizers that risk damaging soil structure, its fertility and also the survival in the food chain.

STRATEGI | STRATEGIES

Membentuk Kawasan Pertanian Terpadu Kecamatan Towuti
Form an Integrated Agricultural Area in Towuti District

PROGRAM | PROGRAM

Memutus Mata Rantai Virus Corona
Tackling Coronavirus

TARGET | TARGET

Meminimalisasi dampak COVID-19 di tingkat regional.

Minimize the impact of COVID-19 at the regional level.

Menerapkan protokol kesehatan secara ketat dan memberikan bantuan baik kepada karyawan maupun masyarakat untuk mengurangi penyebaran virus Corona.

Strictly implement health protocols and provide assistance to both employees and the public to reduce the spread of the coronavirus.



PROGRAM | PROGRAM

Perseroan menandatangani *Diversity and Inclusion Charter*
Perseroan menandatangani *Diversity and Inclusion Charter*

TARGET | TARGET

Peningkatan 100% untuk pekerja perempuan dan 500% pekerja difabel dalam 5-10 tahun ke depan
100% increase in female employees and 500% in employees with disabilities over the next 5-10 years.

STRATEGI | STRATEGIES

Memperluas kesempatan kerja bagi pekerja perempuan dan pekerja difabel
Expand job opportunities for female employees and employees with disabilities



PROGRAM | PROGRAM

Energi Terbarukan untuk Operasi Kami
Renewable Energy for Our Operation

TARGET | TARGET

Mencapai 100% target produksi *clean energy* untuk mempertahankan *self-generated energy* pada tahun 2030.
Achieve 100% clean energy production targets to sustain self-generated energy by 2030.

STRATEGI | STRATEGIES

Optimalisasi energi bersih, stabilisasi daya, pemanfaatan *waste heat*, dan penggantian bahan bakar.
Clean energy optimization, power stabilization, waste heat utilization, and fuel shift.



PROGRAM | PROGRAM

Tim Tanggap Darurat untuk Wilayah Bencana
Emergency Response Team for Disaster Areas

TARGET | TARGET

Menjadi bagian dari upaya percepatan *recovery area* terdampak
Become part of efforts to accelerate the recovery of affected areas

STRATEGI | STRATEGIES

Menyalurkan bantuan kepada daerah terdampak bencana
Provide aid to disaster-affected areas

**PROGRAM | PROGRAM**

Menuju Rendah Karbon
Towards Carbon Low

TARGET | TARGET

Karbon Netral 2050
2050 Carbon Neutral

STRATEGI | STRATEGIES

Mengurangi tingkat emisi gas rumah kaca sebesar 33% pada tahun 2030 melalui optimalisasi konsumsi energi di sepanjang rantai pasokan; melakukan konversi bahan bakar fosil menjadi sumber energi terbarukan; mencapai 100% target produksi energi bersih untuk mempertahankan energi yang dihasilkan sendiri pada tahun 2030; dan tetap melakukan rehabilitasi area pascatambang dan melakukan penghijauan lintas batas.

Reduce greenhouse gas emission levels by 33% by 2030 by optimizing energy consumption along the supply chain; move from fossil fuels to renewable energy sources; achieve 100% clean energy production target to sustain self-generated energy by 2030; and continue to rehabilitate post-mining areas and carry out beyond boundary reforestation.

**PROGRAM | PROGRAM**

Membangun Tata Kelola Perusahaan yang Baik
Building Good Corporate Governance

TARGET | TARGET

Meningkatkan *ethical awareness*
Promote continuous improvement in ethical awareness

STRATEGI | STRATEGIES

Melakukan sosialisasi dan pelatihan antikorupsi dan *ethics & conduct*
Conduct anti-corruption and ethics & conduct socialization and training

**PROGRAM | PROGRAM**

Memutus Mata Rantai Virus Corona
Tackling Coronavirus

TARGET | TARGET

Meminimalisasi dampak COVID-19 di tingkat regional
Minimize the impact of COVID-19 at the regional level

STRATEGI | STRATEGIES

Menerapkan protokol kesehatan secara ketat, memberikan bantuan baik kepada karyawan maupun masyarakat, dan bekerja sama dengan pemangku kepentingan untuk mengurangi penyebaran COVID-19.

Strictly implement health protocols, provide assistance to both employees and the public, and work closely with stakeholders to reduce the spread of COVID-19.

Informasi lebih lanjut terkait program PT Vale dalam mendukung TPB, lihat <https://www.ibcsd.or.id/updates/private-sector-contribution-to-achieve-sdgs-in-indonesia/>

For more information regarding PT Vale's programs for supporting SDGs, see <https://www.ibcsd.or.id/updates/private-sector-contribution-to-achieve-sdgs-in-indonesia/>



Prinsip-prinsip Pengelolaan Tambang Berkelanjutan

Berdasarkan Kerangka Kerja International Council of Mining and Metals

Mining Principles from the International Council on Mining and Metals

 <p>Menerapkan praktik bisnis yang etis dan sistem tata kelola perusahaan yang baik, serta transparansi untuk mendukung pembangunan berkelanjutan. Apply ethical business practices and sound systems of corporate governance and transparency to support sustainable development.</p>	 <p>Mengintegrasikan pembangunan berkelanjutan dalam strategi perusahaan dan proses pengambilan keputusan. Integrate sustainable development in corporate strategy and decision-making processes.</p>	 <p>Penghormatan pada hak asasi manusia budaya, adat istiadat dan nilai-nilai karyawan dan masyarakat yang terdampak kegiatan Perusahaan. Respect human rights and the interests, cultures, customs and values of employees and communities affected by our activities.</p>
 <p>Menerapkan strategi dan sistem manajemen risiko yang efektif, berdasarkan kajian ilmiah dan memperhitungkan persepsi risiko pemangku kepentingan. Implement effective risk-management strategies and systems based on sound science and taking into account stakeholder risk perceptions.</p>	 <p>Mengupayakan pengembangan berkelanjutan kinerja kesehatan dan keselamatan, dengan tujuan akhir <i>zero harm</i>. Pursue continual improvement in health and safety performance with the ultimate goal of zero harm.</p>	 <p>Mengupayakan perbaikan berkelanjutan dalam masalah kinerja lingkungan, meliputi penatagunaan air, penggunaan energi, dan perubahan iklim. Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change.</p>
 <p>Berkontribusi pada konservasi keanekaragaman hayati dan pendekatan terpadu perencanaan penggunaan lahan. Contribute to the conservation of biodiversity and integrated approaches to land-use planning.</p>	 <p>Memfasilitasi dan mendukung basis pengetahuan dan sistem untuk desain yang bertanggung jawab, penggunaan dan penggunaan ulang, daur ulang serta pengolahan produk yang mengandung logam dan mineral. Facilitate and support the knowledge-base and systems for responsible design, use, re-use, recycling and disposal of products containing metals and minerals.</p>	
 <p>Mengupayakan perbaikan berkelanjutan dalam kinerja sosial dan berkontribusi pada pengembangan sosial, ekonomi bagi negara dan komunitas setempat. Pursue continual improvement in social performance and contribute to the social, economic and institutional development of host countries and communities.</p>	 <p>Proaktif melibatkan para pemangku kepentingan pada tantangan dan peluang pembangunan berkelanjutan secara terbuka dan transparan. Secara efektif melaporkan dan melaksanakan verifikasi independen kemajuan dan kinerja. Proactively engage key stakeholders in sustainable development challenges and opportunities in an open and transparent manner. Effectively report and independently verify progress and performance.</p>	



Profil Pekerja [102-8][EM-MM-000.B][POJK51-3.c.2]

Jumlah karyawan PT Vale pada tahun 2020 ada 3.006 orang, termasuk 7 orang atau 0,23% adalah warga negara asing/WNA. Sebagian besar karyawan merupakan penduduk lokal, yakni warga Sorowako dan daerah lain di Kabupaten Luwu Timur. Jumlah mereka ada 2.616 orang atau 87,03% dari total karyawan PT Vale. Sebanyak 5,95% dari senior staff dipegang oleh tenaga kerja lokal. Selain karyawan PT Vale, ada pekerja lain yakni pekerja kontraktor/pemasok dengan jumlah 7.042 atau sebesar 234% dibandingkan total karyawan yang berada di wilayah operasi PT Vale. Selain itu, PT Vale tidak memiliki karyawan paruh waktu. [102-8; 202-2]

Employee Profile [102-8][EM-MM-000.B][POJK51-3.c.2]

In 2020, PT Vale employed 3,006 people, including 7 foreign nationals, or 0.23%. 2,616 people, or 87.03% of the total PT Vale workforce, are local residents, namely residents of Sorowako and other areas in East Luwu Regency. Also 5.95% of the local residents hold senior managerial positions in the Company. Apart from PT Vale employees, there are 7,042 contractor/supplier workers, or 234% of the total workforce. In addition, PT Vale does not have part-time employees. [102-8; 202-2]

Jumlah Karyawan Tahun 2020 Berdasarkan Gender

Number of Employees in 2020 by Gender

Gender Gender	Jumlah Total	Persentase Percentage
Pria Male	2,749	91.5%
Wanita Female	257	8.5%
Jumlah Total	3,006	100.0%



Jumlah Karyawan Tahun 2020 Berdasarkan Status Kepegawaian dan Gender

Number of Employees in 2020 Based on Employment Status and Gender

Status Kepegawaian Employment Status	Pria Male		Wanita Female		Jumlah Total	
	Jumlah Total	%	Jumlah Total	%	Jumlah Total	%
Karyawan Tetap Permanent Employees	2,727	90.7	252	8.4	2,979	99.1
Karyawan Kontrak Contract Employees	22	0.7	5	0.2	27	0.9
Jumlah Total	2,749	91.4	257	8.6	3,006	100.0

Jumlah Karyawan Tahun 2020 Berdasar Status Kepegawaian dan Penempatan

Number of Employees in 2020 Based on Employment Status and Placement

Penempatan Placement	Karyawan Tetap Permanent Employees		Karyawan Tidak Tetap Temporary Employees		Jumlah Total	
	Jumlah Total	%	Jumlah Total	%	Jumlah Total	%
Sulawesi Tengah Central Sulawesi	6	0.2	0	0.0	6	0.2
Sulawesi Tenggara Southeast Sulawesi	6	0.2	0	0.0	6	0.2
Sulawesi Selatan South Sulawesi	2,913	96.9	16	0.5	2,929	97.4
Luar Sulawesi Outside Sulawesi	54	1.8	11	0.4	65	2.2
Jumlah Total	2,979	99.1	27	0.9	3,006	100.0

Jumlah Karyawan Berdasarkan Jabatan dan Gender

Number of Employees Based on Position and Gender

Jabatan Position	2020		2019		2018	
	Pria Male	Wanita Female	Pria Male	Wanita Female	Pria Male	Wanita Female
Management	6	1	5	1	3	1
Senior General Management	13	0	10	0	6	0
General Management	71	7	57	6	54	4
Senior Staff	321	42	267	32	274	30
Staff	606	101	596	92	575	91
Non-Staff	1,732	106	1,863	115	1,937	117
Jumlah Total	2,749	257	2,798	246	2,849	243
	3,006		3,044		3,092	





Kami tidak mempekerjakan pekerja anak maupun tenaga kerja paksa. Selama tahun 2020 tidak ada praktik-praktik diskriminasi terhadap karyawan. Seluruh (100%) karyawan dilindungi perjanjian kerja bersama (PKB) sesuai dengan Peraturan Undang-Undang No.13 tahun 2003 tentang Ketenagakerjaan dan Undang-Undang No. 11 tahun 2020 tentang Cipta Kerja. Kami melakukan evaluasi terhadap pemasok/kontraktor, di antaranya terkait kepatuhan terhadap Undang-Undang Ketenagakerjaan dan penghargaan pada hak asasi manusia (HAM). Lihat halaman 42 untuk informasi evaluasi pemasok/kontraktor. [408-1][409-1][102-41][EM-MM-310a.1]

Keanekaragaman Gender dan Inklusi

PT Vale menghargai keanekaragaman dan inklusi. Pada September 2020, PT Vale mengadakan acara pencanangan program Diversity & Inclusion yang dilakukan secara virtual dan dihadiri oleh Executive Director Vale Base Metals, Mark Travers, beserta *leaders* Vale Kanada, jajaran direksi, dan *leaders* PT Vale. Puncak dari acara tersebut adalah penandatanganan Diversity and Inclusion Charter oleh Mark Travers dan CEO PT Vale Nico Kanter. Terdapat 5 poin yang menjadi komitmen Perusahaan, yaitu:

- Menciptakan lingkungan yang menghormati keistimewaan setiap orang, di mana setiap orang memiliki kesempatan yang sama untuk mengembangkan potensi mereka;
- Membangun lingkungan yang aman dan sehat di mana orang bebas untuk mengutarakan ide, mengeluarkan pandangan, dan dapat menjadi diri mereka sendiri;
- Menjalankan proses yang transparan, adil, dan bebas bias dalam rekrutmen, serta mengevaluasi, dan menciptakan lingkungan kerja yang beragam;
- Tidak ada toleransi untuk segala jenis pelecehan, diskriminasi, maupun prasangka; serta
- Membuka dialog dan meningkatkan kesadaran akan keberagaman.

We do not employ child labor or forced labor. During 2020 there were no discriminatory practices against employees. All (100%) employees are protected by a collective labor agreement (PKB) in accordance with Law No.13 of 2003 concerning Manpower and Law No.11 of 2020 on Job Creation. We conduct evaluations of suppliers/contractors, including matters related to compliance with the Labor Law and respect for human rights (HAM). See page 42 for supplier/contractor evaluation information. [408-1][409-1][102-41][EM-MM-310a.1]

Gender Diversity and Inclusion

PT Vale values diversity and inclusion. In September 2020, PT Vale held a virtual event to launch its Diversity & Inclusion program which was attended by the Executive Director of Vale Base Metals, Mark Travers, along with Vale Canada leaders, board of directors, and leaders of PT Vale. The highlight of the event was the signing of the Diversity and Inclusion Charter by Mark Travers and the CEO of PT Vale, Nico Kanter. There are 5 commitment points:

- Create an environment that respects the privileges of everyone, where everyone has equal opportunity to develop their potential;
- Build a safe and healthy environment where people are free to express ideas, express views and be themselves;
- Implement a transparent, fair and bias-free recruitment process, as well as evaluate, and create a diverse work environment;
- There is zero tolerance for any kind of harassment, discrimination or prejudice; and
- Open dialogue and raise awareness of diversity.



Kami berkomitmen memperluas kesempatan kerja bagi kaum perempuan dan difabel. Perseroan telah merumuskan target aspirasi jumlah pekerja perempuan dan difabel dalam 5-10 tahun mendatang.

Perseroan menargetkan secara bertahap jumlah pekerja perempuan meningkat 100%. Pada periode pelaporan jumlah pekerja perempuan ditargetkan bertambah 12%, dibanding tahun 2019. Realisasi pertambahan jumlah karyawan perempuan adalah 11 orang atau 4,5% menjadi 257 orang pada tahun 2020.

Untuk pekerja difabel, Perseroan menargetkan pertambahan hingga 500%. Namun, pada tahun 2020 realisasi jumlah karyawan difabel menurun dari 5 orang pada tahun 2019, menjadi 4 orang, karena adanya karyawan yang mengundurkan diri.

We are committed to expanding job opportunities for women and people with disabilities. The Company has formulated targets for the number of women and employees with disabilities over the next 5-10 years.

The Company is targeting a gradual increase of 100% in the number of female employees. During the reporting period, the number of female employees was targeted to increase by 12%, compared to 2019. The increase in the number of female employees in 2020 was 11 or 4.5%, bringing the total to 257.

For employees with disabilities, the Company targeted an increase of up to 500%. However, in 2020 the number of employees with disabilities decreased from 5 in 2019 to 4 people, due to an employee resignation.





Pertambahan Jumlah Pekerja Perempuan dan Pekerja Difabel

Increase in the Number of Female Employees and Employees with Disabilities

Uraian Description	2020	2019	2018	Δ%	
	1	2	3	1:2	2:3
Pekerja Perempuan Female Employee	257	246	243	4.5	1.2
Pekerja Difabel Employees with Disabilities	4	5	5	(20.0)	0.0

Jumlah Karyawan Perempuan di Tingkat Jabatan Manajemen

Number of Female Employees at Management Level

Jabatan Position	2020	2019	2018	Δ%	
	1	2	3	1:2	2:3
Direktur Directors	1	1	1	0.0	0.0
Manajer Senior Senior Manager	0	0	0	-	-
Manajer Madya Middle Manager	7	6	4	16.7	50
Penyelia Supervisor	12	11	9	9.1	22.2
Spesialis Specialist	51	37	28	37.8	32.1
Teknisi Technician	186	191	201	(2.6)	(5)
Jumlah Total	257	246	243	4.5	1.2



"Kesetaraan gender menjadi bagian penting dalam pencapaian Tujuan Pembangunan Berkelanjutan. Kesetaraan ini perlu dilakukan untuk membuka sebanyak mungkin peluang, mengeluarkan potensi-potensi terbaik dari tiap individu, dan menumbuhkan generasi penerus yang punya perspektif kesetaraan." — **Febriany Eddy**, Deputy CEO PTVI

"Gender equality is an important part to achieve the Sustainable Development Goals. Our objective is to open up as many opportunities as possible, unleash the best potential of each individual, and create the next generation who have equality perspective."— **Febriany Eddy**, Deputy CEO PTVI

Rantai Pasok dan TKDN [102-9]

Proses pengadaan dilakukan transparan melalui *e-procurement*. PT Vale berupaya menaikkan tingkat komponen dalam negeri (TKDN), sejalan Undang-Undang No. 3 Tahun 2020 tentang Perubahan Atas Undang-Undang No. 4 Tahun 2009 tentang Pertambangan Mineral dan Batubara, serta Peraturan Menteri ESDM No.24 Tahun 2012 Tentang Penyelenggaraan Usaha Jasa Pertambangan Mineral dan Batubara. Realisasi TKDN tahun 2020 mencapai 75,21%, lebih tinggi dibanding tahun 2019 sebesar 70,98%.

Supply Chain and Level of Domestic Component [102-9]

The procurement process is carried out transparently through e-procurement. PT Vale is looking to increase the level of the domestic component (TKDN), in line with Law No. 3 of 2020, an Amendment to Law No. 4 of 2009 concerning Mineral and Coal Mining, as well as the Minister of Energy and Mineral Resources Regulation No. 24 of 2012 concerning the Implementation of Mineral and Coal Mining Services Business. Realization of TKDN in 2020 reached 75.21%, higher than 70.98% in 2019.

Tingkat Komponen Dalam Negeri (TKDN) Domestic Component Level (TKDN)	2020	2019	2018
	75.21%	70.98%	68.17

PT Vale melibatkan pemasok lokal serta memanfaatkan komponen dalam negeri, melalui program *Local Business Initiative* (LBI) dan *Promote National Interest* (PNI). Hingga akhir tahun 2020 ada 295 perusahaan lokal dalam rantai pasok PT Vale, dengan realisasi nilai pengadaan AS\$65,80 juta atau 13% dari total nilai kontrak pengadaan pada tahun 2020.

PT Vale involves local suppliers and uses domestic components, through its Local Business Initiative (LBI) and Promote National Interest (PNI) programs. By the end of 2020 there were 295 local companies in the PT Vale supply chain, with a realized procurement value of US\$65.80 million, or 13% of the total procurement contract value in 2020.

Proporsi Pelibatan Pemasok Supplier Engagement Proportion

Uraian Description	2020		2019		2018	
	Jumlah Total	%	Jumlah Total	%	Jumlah Total	%
Pemasok Lokal Local Suppliers	295	29	295	31	295	38
Pemasok Nasional National Suppliers	516	51	463	49	409	52
Pemasok Internasional International Suppliers	200	20	187	20	80	10
Jumlah Total	1,011	100	945	100	784	100

Nilai Kontrak Pengadaan oleh Pemasok (AS\$) Contract Value by Supplier (US\$)

Uraian Description	2020		2019		2018	
	Jumlah Total	%	Jumlah Total	%	Jumlah Total	%
Pemasok Lokal Local Suppliers	65,795,288	13	61,339,562	11	59,865,031	12
Pemasok Nasional National Suppliers	346,623,150	68	398,597,328	68	268,965,913	56
Pemasok Internasional International Suppliers	99,439,738	19	125,028,445	21	153,548,885	32
Jumlah Total	511,858,176	100	584,965,335	100	482,379,829	100





Pada tahun 2020, ada 386 pemasok yang telah menjalani proses evaluasi, sebanyak 206 atau 53,4% pemasok dinyatakan lolos evaluasi. Evaluasi dilakukan untuk memastikan mereka telah memenuhi standar dan kriteria yang ditetapkan PT Vale. Hasil evaluasi menunjukkan sebanyak 100% pemasok lokal telah memenuhi standar dan kriteria pengelolaan lingkungan yang ditetapkan PT Vale. [308-1]

Evaluasi Pemasok Supplier Evaluation

Uraian Description	Jumlah Pemasok Dievaluasi Number of Suppliers Evaluated	Jumlah Pemasok Lolos Evaluasi Number of Suppliers Passing the Evaluation	%
Pemasok Lokal Local Suppliers	126	126	100
Pemasok Nasional National Suppliers	230	78	33.96
Pemasok Internasional International Suppliers	30	2	6.6
Jumlah Total	386	206	53.4

Proses pengadaan dilakukan melalui penerapan *e-procurement*, yang berbasis pada teknologi informasi (TI). Penerapan *e-procurement* menjadi bagian dari transparansi tata kelola rantai pasok dan mencakup seluruh tahapan tender mulai dari registrasi rekanan (vendor), pra-kualifikasi, proses tender (barang dan jasa), maupun manajemen kontrak. Selain itu, kontraktor PT Vale juga turut dalam aktivitas utama penambangan (eksplorasi, penambangan, pengelolaan lingkungan, aktivitas pascatambang) dan pendukung (keamanan, catering, akomodasi, perawatan fasilitas, dan transportasi).

Prinsip-Prinsip Kehati-hatian [102-11]

Kami menerapkan prinsip kehati-hatian dengan mengedepankan kepatuhan pada regulasi dan praktik-praktik terbaik tambang berkelanjutan. Setiap rencana pengembangan kegiatan operasi dan usaha, selalu dilengkapi dokumen Analisis Mengenai Dampak Lingkungan (AMDAL), serta perizinan lain.

Pada tahun 2020, Perseroan melanjutkan rencana pembangunan pabrik pemurnian (*smelter*) yakni *smelter* HPAL (*high pressure acid leaching*) di Pomalaa, Kabupaten Kolaka, Sulawesi Tenggara; *smelter rotary kiln electric furnace* (RKEF) di Bahodopi, Kabupaten Morowali, Sulawesi Tengah, serta proyek

In 2020, 386 suppliers underwent an evaluation process, and 206 suppliers or 53.4% of total suppliers have passed the evaluation. The evaluation is carried out to ensure they met the standards and criteria set by PT Vale. The evaluation results show that 100% of local suppliers meet the environmental management standards and criteria set by PT Vale. [308-1]

The procurement process uses an information technology-based e-procurement application that forms part of the supply chain governance transparency. It covers all tender stages, from vendor registration and pre-qualifications to goods and services tender processes and contract management. In addition, PT Vale's contractors also participate in the main mining activities (exploration, mining, environmental management, post-mining activities) and support (security, catering, accommodation, facility maintenance, and transportation).

The Precautionary Principle [102-11]

We apply the prudential principle by prioritizing regulatory compliance and sustainable mining best practices. Every operational and business activity development plan is always accompanied by an Environmental Impact Analysis (AMDAL) document and other permits.

In 2020, the Company continued its plan to build smelters, namely the HPAL (high pressure acid leaching) smelter in Pomalaa, Kolaka Regency, Southeast Sulawesi; a rotary kiln electric furnace (RKEF) smelter in Bahodopi, Morowali Regency, Central Sulawesi, as well as a smelter expansion project in

ekspansi smelter di Sorowako. Proyek smelter HPAL di Pomalaa telah memperoleh izin AMDAL serta dalam proses kelengkapan persyaratan Izin Pinjam Pakai Kawasan Hutan (IPPKH). Proyek smelter RKEF Bahodopi dalam tahapan studi teknis termasuk survei AMDAL serta diskusi publik. Lihat halaman 53.

Sorowako. The HPAL smelter project in Pomalaa has obtained an AMDAL permit and is in the process of completing the License-to-Use Forest Area Permit (IPPKH) requirements. The RKEF Bahodopi smelter project is in the technical studies stage including AMDAL surveys and public discussions. See page 53.

Inisiatif Eksternal dan Keanggotaan Asosiasi

External Initiatives and Association Membership [102-12] [102-13][POJK51-3.e]

Selama tahun 2020, PT Vale pada tergabung dalam beberapa inisiatif eksternal, di antaranya:

- Indonesia Global Compact Network (IGCN)
- Indonesia Business Council for Sustainable Development (IBCS)
- Indonesia Business Coalition for Women Empowerment (IBCWE)
- Woman in Mining (WIME)

During 2020, PT Vale joined several external initiatives, including:

- Indonesia Global Compact Network (IGCN)
- Indonesia Business Council for Sustainable Development (IBCS)
- Indonesia Business Coalition for Women Empowerment (IBCWE)
- Woman in Mining (WIME)

Keanggotaan Asosiasi

Association Membership [102-13]

Asosiasi Association	Peran Role	Lingkup Scope
Indonesian Mining Association (IMA)	Presiden Direktur (Nicolas D. Kanter sebagai Wakil Ketua IMA) President Director (Nicolas D. Kanter as Vice Chairman of IMA)	Nasional National
Asosiasi Pengusaha Indonesia (APINDO) The Employers' Association of Indonesia (APINDO)	Anggota Luar Biasa Extraordinary Member	Nasional National
Stock Issuer Association	Anggota Member	Nasional National
Indonesian Corporate Council Association	Erlangga Gaffar, sebagai Wakil Ketua Erlangga Gaffar as Vice President of ICCA	Nasional National
Indonesia Business Council on Sustainable Development (IBCS)	Wakil Presiden Direktur Febriany Eddy, sebagai Wakil Ketua IBCS IBCS - Febriany Eddy as Vice President Steering Committee Anggota pada tingkat Member of Board Member of Board	Internasional International
Nickel Institute	Anggota Member	Internasional International
International Commission on Large Dams (ICOLD)	Anggota Member	Internasional International
Indonesia Corporate Secretary Association (ICSA)	Anggota Member	Nasional National
Indonesia Business Coalition for Women Empowerment (IBCWE)	Anggota Member	Nasional National

Pengungkapan informasi tentang sertifikasi standar internasional (ISO)
dan nasional, **lihat Laporan Tahunan 2020 PT Vale Indonesia Tbk**

For Information Disclosure on international (ISO) and national standard certification,
see the 2020 Annual Report of PT Vale Indonesia Tbk





Penghargaan dan Apresiasi Eksternal External Awards and Appreciation

Selama periode pelaporan, Kami menerima beberapa penghargaan dan apresiasi dari berbagai pihak. Pengungkapan informasi tentang hal ini disampaikan pada beberapa bagian dalam Laporan ini, sesuai konteks pemberian penghargaan dan apresiasi.

During the reporting period, we received several awards and appreciations from various parties. Information disclosure on this matter can be found in several sections in this report.



PT Vale memperoleh penghargaan Green Concern 2020 dari Majalah SWA. Penghargaan diberikan kepada perusahaan tambang yang mampu menjalankan operasional dengan memperhatikan 3P, yakni *people*, *planet*, dan *profit* untuk menjaga keberlanjutan usaha dan sumber daya alam. Penghargaan diberikan pada 26 November 2020 di Jakarta.

PT Vale received the Green Concern 2020 award from SWA Magazine. This award is given to mining companies that carry out their operations with respect to the 3Ps, namely people, planet and profit to maintain the sustainability of business and natural resources. The award was given on November 26, 2020 in Jakarta.

PT Vale Indonesia Tbk meraih penghargaan dalam ajang Bisnis Indonesia Awards 2020 untuk sektor pertambangan logam, mineral, batubara, dan gambut. Penghargaan diberikan pada 14 Desember 2020, di Jakarta.

PT Vale Indonesia Tbk received an award at the 2020 Bisnis Indonesia Awards for the metal, mineral, coal and peat mining sector. The award was presented on December 14, 2020, in Jakarta.



Program Penilaian Peringkat Kinerja Perusahaan dalam Pengelolaan Lingkungan (PROPER) Hijau 2019 yang diterima pada 8 Januari 2020.

Company Performance Rating Program for Green Environmental Management (PROPER) Green 2019 received on January 8, 2020.

Penghargaan lain yang diterima pada tahun 2020, lihat web <http://www.vale.com/indonesia>, atau Laporan Tahunan 2020 PT Vale Indonesia Tbk. Other awards received in 2020, please refer to <http://www.vale.com/indonesia>, or the 2020 Annual Report of PT Vale Indonesia Tbk.



Tetap Tumbuh di Masa Pandemi Keep Growing in Pandemic Times



Pendekatan Manajemen
Management Approach [103-1][103-2][103-3]



PT Vale mempertahankan pertumbuhan melalui kinerja ekonomi yang positif demi keberlanjutan operasi dan usaha. Selama periode pelaporan, Perseroan menerapkan kebijakan penghematan biaya, guna menjaga daya saing. Meski dihadapkan pada dampak pandemi COVID-19, Perseroan mengoptimalkan sumber daya cadangan bijih nikel, karyawan dan fasilitas produksi untuk menghasilkan 72.237 MT nikel dalam *matte* atau 98,95% dari target. Realisasi penjualan nikel dalam *matte* mencapai 72.846 MT, atau 99,79% dari target, dengan Pendapatan Usaha sebesar AS\$764,74 juta, atau 89,95% dari target. Pemegang Saham mengevaluasi kinerja ekonomi Perseroan melalui mekanisme penilaian atas laporan berkala dan pencapaian target *key performance indicators* (KPI) Direksi maupun Dewan Komisaris. Hasil evaluasi memperlihatkan Perseroan mampu mempertahankan kinerja positif selama tahun 2020. Sebagian dari nilai ekonomi yang diperoleh tahun 2020, didistribusikan kepada pemangku kepentingan sesuai kebutuhan mereka.

PT Vale maintains growth through positive economic performance for the sustainability of its operations and business. During the reporting period, the Company implemented a cost-saving policy to maintain competitiveness. Even though faced with the impact of the COVID-19 pandemic, the Company optimized its nickel ore reserves, employees and production facilities to produce 72,237 MT of nickel in matte, or 98.95% of the target. Nickel in matte sales reached 72,846 MT, or 99.79% of the target, resulting in an Operating Revenue of US\$764.74 million, or 89.95% of the target. Shareholders evaluate the Company's economic performance using an assessment mechanism on the periodic reports, and achievement of the Board of Directors and the Board of Commissioners key performance indicators (KPI) targets. The evaluation results showed that the Company maintained a positive performance during 2020. A portion of the derived economic value in 2020 was distributed to stakeholders according to their needs.





Efisiensi dan Operasional Unggul

PT Vale berupaya menjaga daya saing melalui strategi efisiensi, inovasi berkelanjutan dan operasi unggul sehingga mampu menekan biaya produksi. Dengan biaya produksi yang kompetitif, Perseroan dapat menjaga margin di tengah volatilitas harga komoditas dan tantangan bisnis akibat pandemi COVID-19.

Perseroan melanjutkan inisiatif efisiensi biaya produksi yang telah dimulai sejak 2018. Realisasi penghematan pada tahun 2020 mencapai AS\$31 juta, memenuhi target AS\$30-50 juta. Tahun ini, kami juga memulai inisiatif terbaru yang dinamakan "Obeya", yakni inisiatif disruptif untuk mengidentifikasi keborosan (*waste*) di dalam proses bisnis dan menghilangkannya dalam waktu cepat. Ke depan, inisiatif baru ini diharapkan dapat menghasilkan tambahan efisiensi biaya atau peningkatan produktivitas.

Untuk mendukung operasional unggul, PT Vale secara berkelanjutan menerapkan Vale Production System (VPS) yang melibatkan seluruh elemen utama yakni karyawan, operasi, perawatan dan manajemen. Operasional unggul juga didukung optimalisasi pasokan listrik dari tiga unit pembangkit listrik tenaga air (PLTA) yang dioperasikan. Dengan kapasitas 365 MW, tiga unit PLTA memasok 45% kebutuhan listrik.

Perseroan juga mendorong perbaikan secara terus menerus guna mencapai keunggulan operasi melalui kompetisi internal Kaizen. Program dilaksanakan berjenjang pada masing-masing fungsi/unit operasional, hingga mempertemukan setiap inovasi unggul di tingkat perusahaan untuk mendapatkan yang terbaik. Pada tahun 2020 tercatat ada 796 inovasi yang diciptakan dan berkontribusi pada program efisiensi perusahaan.

Realisasi rata-rata biaya produksi nikel dalam *matte* pada tahun 2020 mencapai AS\$6.898 per ton. Angka ini lebih rendah dibanding tahun 2019. Selain karena efisiensi, inovasi berkelanjutan dan operasional unggul, penurunan biaya produksi juga dipengaruhi faktor eksternal yakni penurunan harga minyak dan batubara.

Superior Efficiency and Operations

PT Vale strives to maintain its competitiveness through efficiency strategies, continuous innovations, and superior operations so as to reduce production costs. With competitive production costs, the Company maintained its margins amid the volatility in commodity prices and business challenges due to the COVID-19 pandemic.

The Company continued its production cost efficiency initiatives that have been in place since 2018. Realized savings in 2020 reached US\$31 million, meeting the target of US\$30-50 million. This year, we started a new initiative called "Obeya", a disruptive initiative to identify waste in business processes and eliminate them quickly. In the future, it is expected to further increase cost efficiency or productivity.

To support superior operations, PT Vale continues to apply the Vale Production System (VPS) which involves all key elements, employees, operations, maintenance and management. Superior operations is also supported by optimizing the electricity supply from the three operating hydropower units (PLTA). With a capacity of 365 MW, the three PLTA units supply 45% of the Company's electricity needs.

The Company also encourages continuous improvements to achieve operational excellence through its internal Kaizen competition. The program is carried out in stages at each function/operational unit to bring together all superior innovations at the Company level to determine the best. In 2020, there were 796 new innovations that contributed to the Company's efficiency program.

The average production cost for nickel in matte in 2020 was US\$6,898 per ton, lower than in 2019. As well as efficiencies, continuous innovations and superior operations, the production cost reduction was also influenced by external factors, such as the fall in oil and coal prices.

Biaya Produksi Nikel dalam Matte
Nickel in Matte Production Costs

Satuan Unit	2020	2019	2018
US\$ per Ton	6,898	7,456	7,110

Komponen Biaya Produksi Production Cost Component	2020		2019		2018	
	Biaya (AS\$ Juta) Cost (Million US\$)	%	Biaya (AS\$ Juta) Cost (Million US\$)	%	Biaya (AS\$ Juta) Cost (Million US\$)	%
BBM dan Pelumas Fuel and Lubricants	88	14	146	22	156	23
Depresiasi dan Amortisasi Depreciation, Amortization and Depletion Cost	149	23	131	20	129	19
Bahan Pembantu Indirect Materials	129	20	119	18	114	17
Biaya Karyawan Employee Costs	75	12	77	12	85	13
Batubara Coal	42	7	44	7	62	9
Pajak dan Asuransi Tax and Insurance	32	5	29	5	37	5
Royalti Royalties	15	2	16	2	16	2
Lainnya Others	117	18	94	14	74	12
Beban Pokok Produksi Production Cost	647	100	656	100	673	100

Nilai Ekonomi Dihasilkan dan Didistribusikan

Strategi yang dijalankan membuat PT Vale mampu mengatasi dampak pandemi COVID-19. Selama periode pelaporan Perseroan berhasil mengoptimalkan perolehan Pendapatan Usaha serta Laba Usaha. Sebagian dari pendapatan yang diperoleh, didistribusikan kepada masing-masing pemangku kepentingan, di antaranya dalam bentuk dividen, pembayaran kepada Pemerintah, dan investasi untuk komunitas. Pada tahun 2020, Perseroan mendapatkan insentif pajak dari Pemerintah berupa penurunan PPH badan dari 25% menjadi 22%. [201-1][201-4]

Economic Value Generated and Distributed

The strategies implemented by PT Vale helped it overcome the effects of the COVID-19 pandemic. During the reporting period, the Company succeeded in optimizing its Operating Revenue and Operating Profit. Income generated and distributed to stakeholders includes dividends, payments to the Government and investments for the community. In 2020, the Company get tax incentives from the government, a decrease in corporate income tax from 25% to 22%. [201-1][201-4]





Uraian Description	2020	2019	2018
Nilai Ekonomi Dihasilkan dan Didistribusikan (Ribu AS\$) [201-1] Economic Value Generated and Distributed (US\$ Thousand)			
Pendapatan Revenue	764,744	782,012	776,900
Pendapatan Lain Other Income	4,472	4,759	4,552
Total Pendapatan Total Revenue	769,216	786,771	781,452
Nilai Ekonomi Didistribusikan Economic Value Distributed			
Biaya Operasi Operating Costs	(573,475)	(597,367)	(496,654)
Gaji Karyawan dan Tunjangan Employee Salaries and Allowances	(79,447)	(84,587)	(76,548)
Pembayaran kepada Penyandang Dana Payments to Providers of Capital	0	(1,525)	(4,174)
Pembayaran kepada Pemerintah*	(72,995)	(129,029)	(91,564)
Investasi untuk Komunitas Community Investments	(4,493)	(3,456)	(3,020)
Total Distribusi Nilai Ekonomi Total Economic Value Distribution	(730,410)	(815,864)	(671,960)
Nilai Ekonomi Ditahan Retained Economic Value			
Jumlah Total	38,806	(29,093)	109,492

Keterangan Tabel Nilai Ekonomi Dihasilkan dan Didistribusikan

- Kinerja ekonomi Perseroan disampaikan secara konsolidasi sesuai laporan keuangan yang diaudit, tidak disampaikan berdasar wilayah, area atau produk.
- Penghitungan nilai ekonomi yang disajikan pada Laporan Keberlanjutan menggunakan metode *cash basis*, sesuai yang disarankan GRI Standard, sehingga angka yang disajikan dapat saja berbeda dengan *Audited Financial Statement*.

Laporan ini tidak menyertakan pengungkapan informasi target kinerja keuangan berkelanjutan terkait literasi dan inklusi keuangan, mengingat bidang usaha Perseroan adalah pertambangan bijih nikel dan pengolahan nikel.

Notes on the Economic Value Generated and Distributed Table

- The Company's economic performance is presented on a consolidated basis in accordance with the audited financial reports. It is not based on region, area, or product.
- The calculation of economic value presented in the Sustainability Report uses the cash basis method, as recommended by the GRI Standard, so the figures presented may differ from the Audited Financial Statement.

This report does not include information on sustainable finance and performance targets related to financial literacy and inclusion, as the Company's business fields are nickel ore mining and nickel processing.

Target dan Realisasi Produksi dan Penjualan

Selama periode pelaporan, PT Vale dihadapkan pada beberapa kondisi anomali cuaca akibat fenomena perubahan iklim yang berimplikasi pada keuangan. Meski demikian, Perseroan mampu mengoptimalkan produksi, penjualan dan pengiriman nikel dalam *matte*, sehingga memenuhi target yang ditetapkan. [201-2][POJK51-6.b.1]

Target dan Realisasi Produksi dan Penjualan Nickel dalam Matte Tahun 2020 Nickel in Matte Production Sales Target and Realization in 2020

Uraian Description	Satuan Unit	Target Target	Realisasi Realization	Percentase Percentage
Produksi Production	Ton	73,000	72,237	98.95%
Penjualan Sales		73,000	72,846	99.79%

Realisasi Produksi dan Penjualan Nickel dalam Matte Actual Production and Sales of Nickel in Matte

Actual Production and Sales of Nickel in Matte

Uraian Description	Satuan Unit	2020	2019	2018	Δ%	
		1	2	3	1:2	2:3
Produksi Production	Ton	72,237	71,025	74,806	2	(5)
Penjualan Sales		72,846	72,044	75,631	1	(5)

Realisasi Penjualan Nickel dalam Matte kepada Pembeli Realization of Nickel Matte Sales to Buyers

Uraian Description	2020		2019		2018	
	Ton	%	Ton	%	Ton	%
Vale Canada Limited (VCL)	58,297	80	57,617	80	60,516	80
Sumitomo Metal Mining Co.Ltd	14,548	20	14,427	20	15,115	20
Jumlah Total	72,846	100	72,044	100	75,631	100

Imbal Jasa Pekerjaan dan Dana Pensiun Karyawan

Perusahaan membayarkan imbal jasa pekerjaan (remunerasi) kepada karyawan, tanpa membedakan antara laki-laki dengan perempuan, dengan rasio 1:1. PT Vale memiliki ketentuan remunerasi karyawan, yang telah disesuaikan dengan peraturan tentang upah minimum. PT Vale mengeluarkan dana sebesar AS\$74.503 ribu baik untuk karyawan pria dan wanita, dengan

Production and Sales Targets and Realization

During the reporting period, PT Vale faced several weather anomalies due to climate change phenomenon that had financial implications. However, the Company was able to optimize production, sales and deliveries of nickel in matte, so as to meet the targets set. [201-2][POJK51-6.b.1]

Employee Benefits and Employee Pension Funds

The Company pays remuneration to employees, without differentiating between men and women, in a ratio of 1:1. PT Vale's employee remuneration is adjusted to the minimum wage regulations. PT Vale spent US\$74,503 thousand for both male and female employees, with a salary to minimum wage ratio of East Luwu Regency





rasio gaji dibanding upah minimum kabupaten Luwu Timur mencapai 108%. Selain itu, PT Vale menjamin tidak ada diskriminasi di tempat kerja dan kesetaraan antara pria dan wanita dalam mengembangkan kapasitasnya. Lebih dari itu, PT Vale mendukung para pekerja perempuan untuk mendapat kesempatan karir seluas-luasnya. [202-1][405-2][406-1]

Perseroan menyertakan karyawan dalam Program Pensiun Iuran Pasti (PPIP) yang dikelola Dana Pensiun Lembaga Keuangan (DPLK), serta Program Jaminan Hari Tua dan Program Jaminan Pensiun dari BPJS Ketenagakerjaan. PPIP bersifat *mandatory* untuk pekerja yang sudah bekerja lebih dari tiga tahun. Porsi DPLK mencakup 10% dari perusahaan dan 2% dari karyawan. Pada tahun 2020, jumlah dana pensiun mencapai AS\$26,7 juta, naik dibanding tahun 2019 sebesar AS\$19,4 juta. Hal ini disebabkan oleh kenaikan tambahan manfaat pensiun, penurunan keuntungan dari asumsi keuangan dan kerugian dari penyesuaian pengalaman. [201-3]

Kontribusi pada Penerimaan Negara dan Kebijakan Terkait Pajak

Bentuk lain distribusi nilai ekonomi yang diperoleh adalah pembayaran pajak dan PNBP kepada Pemerintah. Pengelolaan pajak Perseroan berada di bawah tanggung jawab Direktur Keuangan. Pembayaran pajak dilakukan melalui kantor pajak, baik di tingkat pusat maupun daerah, sesuai ketentuan perpajakan yang berlaku di Indonesia. Secara berkala Perseroan melakukan sosialisasi maupun konsultasi terkait Surat Pemberitahuan Pajak (SPT) kepada karyawan, kontraktor/pemasok dan pihak-pihak.

PNBP yang dibayarkan terdiri Iuran Produksi, Iuran Tetap Wilayah Kontrak Karya, dan PNBP lainnya. Pajak yang dibayarkan terdiri dari Pajak Pertambahan Nilai; Pajak Bumi dan Bangunan; Pajak Penghasilan Karyawan; Pajak Penghasilan Badan; Pajak, Retribusi dan Hibah Daerah; Pemotongan Pajak Penghasilan Pihak Ketiga; dan Bea Masuk. Selama periode pelaporan, PT Vale membayarkan pajak dan PNBP total sebesar AS\$72,995 ribu. Jumlah tersebut turun 43% dibanding tahun 2019 yang mencapai AS\$129,029 ribu. [201-1]

reaching 108%. In addition, PT Vale guarantees no discrimination in the workplace and equality between men and women in developing their capacity. Moreover, PT Vale supports female workers to get the widest possible career opportunities. [202-1][405-2][406-1]

The Company includes its employees in a Defined Benefit Pension Program (PPMP) managed by a Financial Institution Pension Fund (DPLK), as well as a Pension Plan Program and a Pension Insurance Program through BPJS Ketenagakerjaan. PPIP is mandatory for workers who have worked for more than three years. The DPLK portion covers 10% from the company and 2% from employees. In 2020, the amount of pension funds reached US\$26.7 million an increase from US\$19.4 million in 2019. This is due to an increase in the additional pension benefits, a decrease in the gain on financial assumptions and a loss from experience adjustments.. [201-3]

Contribution to State Revenue and Tax-Related Policies

One form of economic value distributed is in taxes and PNBP payments to the Government. The Company's tax management is the responsibility of the Chief Financial Officer (CFO). Tax payments are made through the central and regional tax offices, in accordance with the prevailing taxation regulations in Indonesia. Periodically, the Company conducts socialization and consultations related to Tax Returns (SPT) with employees, contractors/suppliers, and other parties.

PNBP payments consist of Production Royalties, Land Rent for Contract of Work Areas, and other PNBP. Taxes paid consist of Value Added Tax; Land and Building tax; Employee Income Tax; Corporate Income Tax; Regional Taxes, Levies and Grants; Third Party Income Tax Withholding; and Import Duties. During the reporting period, PT Vale taxes and PNBP payments amounted to US\$72,995 thousand, a decrease of 43% compared to US\$129,029 thousand in 2019. [201-1]

Kontribusi Terhadap Negara (Ribu AS\$)
Contribution to the State (US\$ Thousand)

Uraian Description	2020	2019	2018
Pembayaran Pajak Payments of Taxes and Levies	51,871	100,713	75,230
Pembayaran Penerimaan Negara Bukan Pajak (PNBP) Payments of Non-tax State Revenue (PNBP)	21,124	28,316	16,335
Total Pembayaran (PNBP + Pajak) Total Payments (PNBP + Taxes)	72,995	129,029	91,565

Komponen Penerimaan Negara Bukan Pajak (PNBP) (Ribu AS\$)
Components of Non-tax State Revenue (US\$ Thousand)

Uraian Description	2020	2019	2018
Iuran Produksi Production Royalties	15,505	15,860	15,715
Iuran Tetap Wilayah Kontrak Karya Land Rent for Contract of Work Areas	528	472	474
PNBP Lainnya Other Non-tax State Revenue	5,091	11,984	146
Jumlah Total	21,124	28,316	16,335

Komponen Pajak dan Retribusi (Ribu AS\$)
Components of Taxes and Levies (US\$ Thousand)

Uraian Description	2020	2019	2018
Pajak Pertambahan Nilai Value Added Tax	858	868	827
Pajak Bumi dan Bangunan Land and Building Tax	2,407	2,379	1,899
Pajak Penghasilan Karyawan Employee Income Tax	8,184	11,917	10,066
Pajak Penghasilan Badan Corporate Income Tax	38,372	55,430	36,349
Pajak, Retribusi dan Hibah Daerah Regional Taxes, Levies and Grants	24,980	20,784	19,984
Pemotongan Pajak Penghasilan Pihak Ketiga Third Party Income Tax Withholding	4,457	4,467	3,774
Bea Masuk Duties	4,462	4,868	2,330
Jumlah Total	83,720	100,713	75,229





Pengembangan Berkelanjutan

PT Vale melanjutkan pengembangan berkelanjutan untuk meningkatkan kapasitas produksi 90.000 ton nikel dalam *matte*, yang ditargetkan tercapai tahun 2026. Pada periode pelaporan, Perseroan melanjutkan rencana pembangunan dan pengembangan unit *smelter* baru. Untuk mendukung realisasi rencana tersebut, PT Vale telah membentuk anak usaha yang akan mengelola unit *smelter rotary kiln electric furnace* (RKEF) di Bahodopi, Kabupaten Morowali, Sulawesi Tengah; dan unit *smelter high pressure acid leach* (HPAL) di Pomalaa, Kabupaten Kolaka, Sulawesi Tenggara. Lihat halaman 44.

PT Vale juga berencana membangun kembali tanur listrik 4. Semula pembangunan kembali tanur listrik 4 akan dikerjakan pada triwulan keempat tahun 2020, namun ditunda menjadi triwulan kedua tahun 2021. Pembangunan kembali tanur listrik 4 akan meningkatkan kapasitas produksi nikel dalam *matte*.

Langkah lain yang dilakukan PT Vale adalah penerapan Vale *Power Shift*, untuk mengurangi pemakaian bahan bakar fosil. Langkah ini diterapkan secara terintegrasi dengan strategi elektrifikasi, sehingga turut mendukung upaya penerapan kebijakan penurunan emisi gas rumah kaca (GRK) pada 2030 dan karbon netral pada tahun 2050. Lihat halaman 58.



Sustainable Development

PT Vale continues its ongoing development to increase production capacity in Sorowako to 90,000 tonnes of nickel in matte per year, which is targeted for completion in 2026. During the reporting period, the Company continued its plans to build and develop the other deposits. To support this plan, PT Vale has formed a subsidiary to manage the rotary kiln electric furnace (RKEF) smelter unit in Bahodopi, Morowali Regency, Central Sulawesi; and another one for the high pressure acid leach (HPAL) plant unit in Pomalaa, Kolaka Regency, Southeast Sulawesi. See page 44.

PT Vale also plans to rebuild furnace 4. Originally the furnace 4 rebuild was scheduled for the fourth quarter of 2020, but it was postponed to the second quarter of 2021. Rebuilding furnace 4 will increase the production capacity of nickel in matte.

Another step taken by PT Vale is the implementation of Vale Power Shift, to reduce the use of fossil fuels. This step is being implemented in an integrated manner following an electrification strategy, thus supporting efforts to implement policies to reduce greenhouse gas (GHG) emissions in 2030 and to be carbon neutral by 2050. See page 58.



Tanggung Jawab Produk Product Responsibility

Produk nikel dalam *matte* merupakan produk antara, dan digunakan dalam proses lanjut oleh pembeli yakni VCL dan SMM. Dengan demikian produk nikel dalam *matte* tidak secara langsung mempengaruhi keselamatan dan keamanan pelanggan.

Seluruh (100%) produk PT Vale telah dinilai dampak kesehatan dan keselamatannya, sehingga tidak ada pengaduan terkait keluhan keselamatan, kesehatan dan keamanan dari karyawan, pekerja kontraktor maupun pelanggan. Proses produksi dan produk nikel dalam *matte* telah memenuhi ketentuan-ketentuan keselamatan, kesehatan dan keamanan. Proses *assessment* berlangsung bersamaan dengan pengajuan pemenuhan standar, yakni: [416-1][416-2]

- *Restriction of Hazardous Substances* (RoHS) atau aturan pembatasan bahan berbahaya untuk industri manufaktur dan peralatan elektronik yang diadopsi Uni Eropa sejak tahun 2006;
- Sertifikasi ISO 9001:2008 tentang Sistem Manajemen Mutu dan ISO 17025:2008 tentang Persyaratan Kompetensi Laboratorium Pengujian dan Kalibrasi.

Pengiriman nikel dalam *matte* ke pembeli dilakukan dalam kemasan khusus dengan kapasitas 3,3 ton. Pada bagian luar kemasan dilengkapi label yang menjelaskan spesifikasi produk dan cara penanganan. Selama tahun 2020, tidak ada keluhan yang disampaikan pembeli terkait ketidaksesuaian informasi pada label tersebut. PT Vale telah melakukan penilaian kepatuhan atas prosedur label pada seluruh (100%) produknya. [417-1][417-2]

The nickel in matte product is an intermediate product and is used in further processing by buyers, namely VCL and SMM. Thus, nickel in matte products do not directly affect customer safety and security.

All (100%) of PT Vale's products have been assessed for their health and safety impacts. There have been no complaints regarding safety, health and security from employees, contractor workers or customers. The nickel in matte production process and products comply with safety, health and security requirements. The assessment process takes place simultaneously with the submission of standard compliance, namely: [416-1][416-2]

- Restriction of Hazardous Substances (RoHS) or rules for limiting hazardous materials in the manufacturing and electronic equipment industries, as adopted by the European Union since 2006;
- ISO 9001: 2008 Certification regarding Quality Management Systems and ISO 17025: 2008 concerning Competency Requirements for Testing and Calibration Laboratories.

Nickel in matte to buyers is shipped in special packages with a capacity of 3.3 tons. On the outside of the package are labels explaining the product specifications and handling methods. During 2020, there were no complaints made by buyers regarding discrepancies in the information on the labels. PT Vale has conducted compliance assessments on labeling procedures for all (100%) of its products. [417-1][417-2]





Selama periode pelaporan, PT Vale tidak melakukan inovasi produk dan hanya memproduksi nikel dalam *matte*. Produk nikel dalam *matte* tidak secara langsung memberikan dampak terhadap pengguna, sehingga tidak diperlukan penanganan khusus. Nikel yang telah diproses menjadi produk akhir dapat didaur ulang. Selama periode pelaporan, PT Vale tidak pernah dihadapkan pada pelarangan atau penarikan produk oleh otoritas tujuan ekspor. [POJK51-6.f.1] [POJK51-6.f.3][POJK51-6.f.4]

Selain itu, PT Vale berkomitmen untuk memberikan layanan yang setara kepada setiap pelanggan. Selama tahun 2020, tidak ada produk yang ditarik kembali karena sudah memiliki kontrak jangka panjang dengan standar yang telah ditetapkan. Lebih lanjut, PT Vale telah menerapkan Sistem Produksi Vale Terpadu yang merupakan standarisasi dalam mengevaluasi keamanan dan mutu setiap produk (100%) yang dimulai dari tingkat operasional. [POJK51-6.c.1] [POJK51-6.f.2]

During the reporting period, PT Vale did not make any product innovations and only produced nickel in matte. The nickel in matte product does not directly affect the user, so no special handling is required. Nickel that has been processed into a final product can be recycled. During the reporting period, PT Vale did not face any ban or withdrawal of products by export destination authorities. [POJK51-6.f.1] [POJK51-6.f.3] [POJK51-6.f.4]

In addition, PT Vale is committed to providing equal service to all customers. During 2020, no products were recalled as they already comply with long-term contracts with predefined standards. Furthermore, PT Vale has implemented an Integrated Vale Production System, a standard for evaluating the safety and quality of each product (100%) starting from the operational level. [POJK51-6.c.1] [POJK51-6.f.2]



Inspirasi Lingkungan Berkelanjutan

Sustainable Environmental Inspiration





PT Vale berkomitmen terus berkontribusi pada pengelolaan lingkungan yang berkelanjutan, pada seluruh kegiatan yang dijalankan. Sejalan kebijakan Global Vale, pengelolaan lingkungan bertujuan mendukung pencapaian kegiatan pertambangan karbon netral dan transisi menuju ekonomi rendah karbon.

PT Vale is committed to continuing to contribute to sustainable environmental management in all activities it carries out. In line with the Vale Global policy, environmental management aims to support the achievement of carbon neutral mining activities and the transition to a low carbon economy.



Pengendalian Emisi Menuju Karbon Netral

Emission Control Towards Carbon Neutral



Pendekatan Manajemen Management Approach [103-1][103-2][103-3]

PT Vale berkomitmen mengendalikan emisi gas rumah kaca (GRK), dengan menurunkan tingkat emisi karbon perusahaan sebesar 33% pada tahun 2030, dan emisi karbon rantai pasok sebesar 15% pada tahun 2035. Komitmen tersebut sejalan peta jalan Vale Global menerapkan karbon netral pada tahun 2050. Upaya pengendalian emisi dilakukan dengan memastikan kualitas emisi sesuai baku mutu, dan penurunan tingkat emisi GRK. Direksi melakukan evaluasi atas upaya pengelolaan emisi melalui penilaian pelaporan berkala kepada pihak-pihak berwenang, serta pencapaian *key performance indicators*. Dari hasil evaluasi diketahui Perseroan telah mampu memenuhi baku mutu emisi, dan target penurunan emisi GRK.

PT Vale is committed to controlling greenhouse gas (GHG) emissions by reducing the Company's carbon emission levels by 33% by 2030 and supply chain carbon emissions by 15% by 2035. This commitment is in line with Vale Global's roadmap to carbon neutrality by 2050. Emission control efforts are carried out by ensuring emission quality is in accordance with quality standards and reducing GHG emission levels. The Board of Directors evaluates the emission control efforts through periodic reporting of assessments to authorized parties, and through the achievement of key performance indicators. From the assessment results, the Company will know if it has met the emission quality standards and GHG emission reduction targets.





Reduksi Emisi GRK

[305-5][EM-MM-110a.1] EM-MM-110a.2]

Komitmen PT Vale pada pengendalian emisi menjadi bagian dari kebijakan Vale Global, untuk menerapkan karbon netral pada tahun 2050. Sebagai bagian dari Vale Global, PT Vale menargetkan penurunan tingkat emisi karbon perusahaan 33% pada tahun 2030 dengan *baseline* penghitungan tahun 2017.

Realisasi penurunan emisi GRK yang telah dilakukan PT Vale hingga akhir tahun 2020, adalah pengoperasian PLTA. Operasional PLTA menghindari tambahan emisi karbon scope 1, sebesar 1.118.231 ton CO₂eq per tahun jika listrik dibangkitkan menggunakan pembangkit listrik tenaga diesel (PLTD), dan 2.292.375 ton CO₂eq per tahun jika listrik dibangkitkan menggunakan pembangkit listrik tenaga uap (PLTU) batubara. Jumlah tersebut setara pemakaian bahan bakar diesel atau batubara untuk pembangkit listrik thermal dengan kapasitas sama. Perhitungan CO₂eq mencakup konversi emisi GRK non-CO₂ (CH₄, N₂O, HFC, PFC, SF₆, dan NF₃) berdasarkan metode penghitungan neraca konsumsi energi dari bahan bakar fosil dan gas penyebab efek rumah kaca dengan *baseline* tahun 2017. Selain itu, tidak ada maksimum emisi yang harus dikeluarkan.

Secara bertahap, PT Vale juga berupaya menekan emisi GRK dari kegiatan rantai pasok, yang termasuk scope 3. Strategi yang dijalankan adalah dengan mendorong pemasok maupun pelanggan, pada komitmen bersama mengurangi emisi karbon dari setiap kegiatan yang dijalankan.

GHG Emissions Reduction

[305-5][EM-MM-110a.1] EM-MM-110a.2]

PT Vale's commitment to controlling emissions is part of Vale Global's policy to achieve carbon neutrality by 2050. As part of Vale Global, PT Vale targets reducing its carbon emission levels by 33% by 2030 from a calculation baseline in 2017.

The GHG emission reductions achieved by PT Vale until the end of 2020 is due to operating hydropower plants (PLTA). Hydropower operations reduces scope 1 carbon emissions by 1,118,231 tons CO₂eq per year, compared to electricity generated by a diesel power plant (PLTD), and 2,292,375 tons CO₂eq per year compared to electricity generated by coal-fired steam power plants (PLTU). This assumes the use of diesel fuel or coal in a thermal power plant with the same capacity. The CO₂eq calculation includes the conversion of non-CO₂ GHG emissions (CH₄, N₂O, HFC, PFC, SF₆, and NF₃) based on the method of calculating the energy consumption balance of fossil fuels and gases causing the greenhouse effect with the 2017 baseline. In addition, there are no maximum emissions that must be issued.

Gradually, PT Vale also seeks to reduce GHG emissions from supply chain activities, which are included in scope 3. The strategy implemented is to encourage suppliers and customers to commit to reducing carbon emissions from every activity.



Pengendalian Emisi SO₂

[305-7][EM-MM-120a.1]

Emisi SO₂ bersumber dari penggunaan sulfur dalam proses pengolahan bijih nikel, pemakaian bahan bakar HSFO dan batubara. Kami terus berupaya agar kualitas emisi SO₂ memenuhi baku mutu yang ditetapkan pemerintah, berdasar Permen LH No.4 Tahun 2014 tentang Baku Mutu Emisi Sumber Tidak Bergerak bagi Usaha dan/atau Kegiatan Pertambangan.

Secara berkala PT Vale memantau dan melakukan penghitungan kadar emisi SO₂. Penghitungan menggunakan metode neraca massa, dengan menentukan intensitas emisi melalui perbandingan berat SO₂ yang diemisikan dengan berat produk yang dihasilkan. Penghitungan emisi SO₂ dinyatakan dalam satuan Ton SO₂/TonNi. Hasil penghitungan kadar emisi SO₂ telah memenuhi ambang batas baku mutu 0,80 Ton SO₂/TonNi.

Selama tahun 2020 PT Vale telah melakukan beberapa upaya untuk mengendalikan emisi SO₂, di antaranya: [POJK51-6.e.4.b]

- Stabilisasi proses pada tanur reduksi yang berpengaruh pada konsumsi Sulfur cair.
- Konversi penggunaan bahan bakar marine fuel oil (MFO) menjadi batubara pada tanur pengering dan tanur reduksi no. 2 dan 3 di mana kadar sulfur pada batubara lebih rendah dari MFO.
- Konversi diesel konvensional menjadi diesel B20 dengan kadar sulfur biodiesel lebih rendah dari diesel konvensional.

Hasil Pengukuran Intensitas Emisi SO₂

SO₂ Emission Intensity Measurement Results [305-4][POJK51-6.e.4.a]

Uraian Description	Satuan Unit	2020	2019	2018
Jumlah Produksi Nikel Total Nickel Production	Ton	72,237	71,025	74,806
Jumlah Emisi SO ₂ Total SO ₂ Emissions	Ton	57,320	51,435	55,040
Intensitas Emisi Emissions Intensity	Ton SO ₂ /Ton Ni	0.79	0.72	0.74
Baku Mutu Quality Standards	Ton SO ₂ /Ton Ni	0.80*	0.80*	0.86

Keterangan | Note:

* Baku Mutu berlaku efektif per Oktober 2019

Quality Standards have been effective since October 2019

SO₂ Emission Control

[305-7][EM-MM-120a.1]

SO₂ emissions result from the use of sulfur in nickel ore processing that uses HSFO fuels and coal. We will continue to work to ensure the quality of SO₂ emissions meets the Government's quality standards, based on the Minister of Environment and Forestry Regulation No.4 of 2014 concerning Fixed Source Emission Quality Standards for Mining Business and/or Activities.

PT Vale regularly monitors and calculates SO₂ emissions levels. The calculation uses the mass balance method, by determining emission intensity through the weight of SO₂ emitted to the weight of the product produced. SO₂ emission calculations are stated in Ton SO₂/TonNi. The SO₂ emission calculation levels have met the quality standard threshold of 0.80 Ton SO₂/TonNi.

During 2020, PT Vale instigated several steps to control SO₂ emissions, including: [POJK51-6.e.4.b]

- Stabilization process in reduction kilns that affects the consumption of liquid Sulfur.
- Converting the use of marine fuel oil (MFO) to coal in drying furnaces and reduction furnaces no. 2 and 3 where the sulfur content in coal is lower than MFO.
- Converting conventional diesel to B20 diesel where the sulfur content in biodiesel is lower than conventional diesel.





Pengendalian Partikulat

[305-7][EM-MM-120a.1]

Pengukuran partikulat dilakukan sesuai USEPA Method 5 dan dinyatakan dalam satuan Ton Partikulat/TonNi. Nilai baku mutu partikulat adalah 0,22 Ton Partikulat/TonNi. Dari hasil pengukuran diketahui konsentrasi partikulat selama tahun 2020 telah memenuhi baku mutu.

Hasil Pengukuran Intensitas Partikulat

Particulate Intensity Measurement Results

Uraian Description	Satuan Unit	2020	2019	2018
Jumlah Produksi Nikel Total Nickel Production	Ton	72,237	71,025	74,806
Jumlah Partikulat yang Diemisikan Number of Particulates Emitted	Ton	1,531	877	1,788
Intensitas Partikulat Particulate Intensity	Ton Partikulat/TonNi Ton Particulate/TonNi	0.021	0.010	0.019

Emisi Substansi

Perusak Ozon [305-6]

PT Vale juga berupaya mengurangi emisi substansi perusak ozon (ODS). Berdasar inventaris yang dilakukan tahun 2020, sumber emisi ODS berasal dari aktivitas penggantian pendingin/freon di departemen General Facility Services (GFS) dan Central Maintenance (CM), dan jenis emisi ODS terdiri atas *Monochlorodifluoromethane / HCFC-22 (CHF2Cl)* dengan total volume mencapai 3,1 ton. Penghitungan volume berdasar metode volume pembelian dengan *baseline* tahun 2017. Upaya yang dilakukan untuk mengurangi emisi ODS, salah satunya mengganti freon yang berbahana ODS (HCFC-22) dengan freon yang lebih ramah lingkungan (HFC), seperti HFC-32 atau R-32 (*Difluoromethane*).

Particulate Control

[305-7][EM-MM-120a.1]

Particulate measurements were carried out according to USEPA Method 5 and expressed in units of Ton Particulate/TonNi. The particulate quality standard is 0.22 Ton Particulate/TonNi. From the measurement results, it is seen that the particulate concentrate during 2020 met the quality standard.

Ozone Depleting Substances

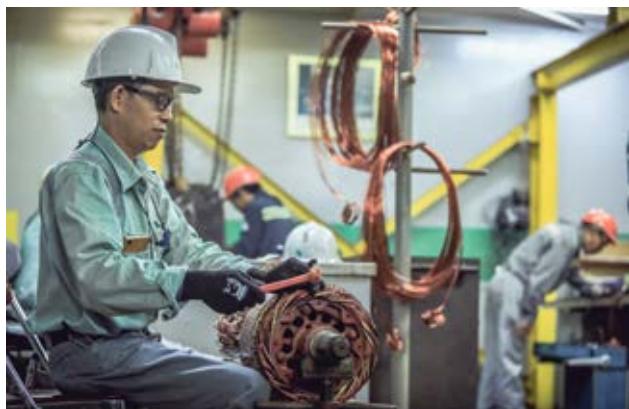
Emissions (ODS) [305-6]

PT Vale is also working on emissions reductions from ozone depleting substances (ODS). Based on an inventory carried out in 2020, the source of ODS emissions comes from the freon replacement activities in the General Facility Services (GFS) and Central Maintenance (CM) departments, also the type of ODS emissions consists of Monochlorodifluoromethane/HCFC-22 (CHF2Cl) with a total volume up to 3.1 tons. The volume calculation is based on the purchased volume method with a 2017 baseline. Efforts were made to reduce ODS emissions, one of which is replacing freon made from ODS (HCFC-22) with more environmentally friendly Freon (HFC), such as HFC-32 or R-32 (Difluoromethane).



Pengelolaan Energi dan Dukungan Ekonomi Rendah Karbon

Energy Management and Low Carbon Economy Support



Pendekatan Manajemen

Management Approach [103-1][103-2][103-3]

PT Vale berkomitmen melakukan pengelolaan energi untuk mendukung kebijakan efisiensi. PT Vale menargetkan pemakaian energi yang efisien, sehingga bisa mempertahankan daya saing dengan menekan biaya produksi. Sejalan dengan kebijakan Vale Global untuk menerapkan ekonomi rendah karbon, PT Vale melakukan inisiatif Vale Power Shift yang berbasis pada energi baru dan terbarukan (EBT), dengan mengoptimalkan seluruh sumber daya yang dimiliki. Direksi melakukan evaluasi atas upaya pengelolaan emisi melalui penilaian pelaporan berkala kepada pihak-pihak berwenang, serta pencapaian *key performance indicators*. Dari hasil evaluasi diketahui Perseroan telah mampu mengelola energi secara efisien selama tahun 2020.

PT Vale is committed to managing energy to support efficiency policies. PT Vale targets efficient energy use, so that it can maintain competitiveness by reducing production costs. In line with Vale Global's policy of implementing a low-carbon economy, PT Vale is implementing the Vale Power Shift initiative that focuses on new and renewable energy (NRE) by optimizing all its resources. The Board of Directors evaluates the emission management efforts through periodic reporting of assessments to authorized parties, and through the achievement of key performance indicators. From the assessment results, the Company will know if it has been able to manage energy efficiently during 2020.





Tentang Vale Power Shift

Vale Power Shift merupakan program internal Vale Global, untuk mendukung kebijakan transisi menuju ekonomi rendah karbon pada masa mendatang. Program ini bertujuan untuk membersihkan matriks energi yang dijalankan PT Vale, dengan berfokus pada penggunaan energi terbarukan dan bahan bakar alternatif, serta efisiensi dengan menggunakan teknologi baru. Inisiatif yang terkait dengan Vale Power Shift diharapkan memberikan kontribusi sekitar 40% dari pengurangan yang direncanakan.

Realisasi Vale Power Shift pada tahun 2020 meliputi:

- Pada kegiatan pertambangan adalah dengan efisiensi energi termasuk otomatisasi dan penggunaan kepintaran buatan, elektrifikasi terbarukan, penggunaan bahan bakar alternatif serta lainnya.
- PT Vale membatalkan Coal Conversion Project (CCP). Meskipun proyek ini berkontribusi pada pengurangan biaya keuangan Perusahaan sekitar AS\$40 juta per tahun, namun dengan membatalkan CCP, Perusahaan dapat menghindari peningkatan emisi rumah kaca rata-rata sebesar 200.000 ton CO₂eq per tahun.

Konsumsi dan Efisiensi Energi

[302-1][302-2][EM-MM-130a.1][POJK51-6.d.3.a]

Penghitungan konsumsi energi mencakup volume pemakaian energi untuk kegiatan operasi dan produksi. Laporan belum menyertakan penghitungan konsumsi energi untuk kegiatan di luar perusahaan, meski PT Vale menggunakan sumber energi dari grid (PT PLN), namun jumlahnya tidak signifikan sehingga tidak termasuk dalam penghitungan. Penghitungan menggunakan metode penjumlahan volume sumber energi yang digunakan, dan dikonversi ke dalam satuan Gigajoule (GJ) menggunakan konversi International Energy Agency (IEA).

Konsumsi energi digunakan untuk operasional alat berat pada operasi pertambangan bijih nikel dan proses produksi nikel dalam *matte*. Energi yang dikonsumsi bersumber dari pasokan listrik PLTA, pembangkit listrik thermal, dan penggunaan bahan bakar fosil. Total konsumsi energi tahun 2020 mencapai 28.004.485 GJ, naik 2,3% dibanding tahun 2019 sebesar 27.366.791 GJ. Pemakaian batubara menjadi sumber pasokan energi terbesar dengan total pasokan mencapai 10.060.985 GJ, atau setara 35,9% dari total konsumsi energi. Adapun PT Vale menggunakan energi terbarukan yang bersumber dari PLTA sebesar 31,25% dari total konsumsi.

About Vale Power Shift

Vale Power Shift is an internal Vale Global program, to support policies for the future low carbon economy transition. This program aims to improve the energy matrix run by PT Vale, by focusing on the use of renewable energy and alternative fuels, as well as the efficiencies in using new technologies. The Vale Power Shift initiative is expected to contribute around 40% of the planned reductions.

Realizing Vale Power Shift in 2020 includes:

- In mining activities, energy efficiencies include automation and use of artificial intelligence, renewable electrification, use of alternative fuels and others.
- PT Vale has canceled its Coal Conversion Project. Even though it contributed to reducing the Company's financial costs by around US\$40 million per year. By cancelling CCP, PT Vale will avoid increasing greenhouse emissions by 200,000 tons CO₂eq per year on average.

Energy Usage and Efficiency

[302-1][302-2][EM-MM-130a.1][POJK51-6.d.3.a]

Energy consumption calculations include the volume of energy sources used for operations and production activities. The report does not include the calculation of energy consumption for activities outside the company, although PT Vale uses energy sources from the grid (PT PLN), the amount is not significant so it is not included in the calculation. The calculation uses the sum method for the volume of energy sources used, which is then converted into Gigajoule (GJ) units using the International Energy Agency (IEA) conversion.

Energy is consumed by heavy equipment in the nickel ore mining operations and the nickel in matte production process. The energy consumed comes from hydroelectric power supply, thermal power generation, and the use of fossil fuels. The total energy consumption in 2020 reached 28,004,485 GJ, an increase of 2.3% compared to 27,366,791 GJ in 2019. Coal is the largest source of energy supplied with a total supply of 10,060,985 GJ, or 35.9% of the total energy consumption. Meanwhile, PT Vale uses renewable energy sourced from hydropower plants amounting to 31.25% of total consumption.

Volume Pemakaian Energi di Dalam Organisasi (GJ)
 Energy Usage Volumes within the Organization (GJ) [302-1]

Sumber Energi Energy Sources	Peruntukan Allotment	2020	2019	2018
Energi Tidak Terbarukan Non-renewable Energy				
Batu bara Coal	Tanur Reduksi Reduction Kilns	5,440,065	5,107,702	5,491,475
	Tanur Pengering Drying Kilns	4,620,919	3,655,376	5,418,028
	Total Tanur Pembakar Total Firing Kilns	10,060,985	8,763,078	10,909,503
High Speed Diesel HSD	Kendaraan Berat Heavy Vehicles	2,142,778	2,002,173	2,161,310
	Pembangkit Thermal Thermal Generators	9,028	508,511	31,224
	Tanur Pengering Drying Kilns Tanur Pereduksi Reduction Kilns	556,190	521,790	563,342
	Lainnya Other	290,260	346,025	315,216
	Total Total	2,998,257	3,378,501	3,071,095
High Sulfur Fuel Oil HSFO	Tanur Pengering Drying Kilns Tanur Pereduksi Reduction Kilns	6,184,224	6,647,152	6,835,735
	Boiler Boiler	381	72,362	279,801
	Total Total	6,184,606	6,719,514	7,115,536
Bensin* Gasoline	Kendaraan Ringan Light Vehicles	9,256	13,988	14,458
Energi Terbarukan Renewable Energy				
PLTA Hydroelectric Power Plant	Pabrik Pengolahan Processing Plants	8,751,380	8,491,708	9,058,556
Jumlah Total	Semua Pemakaian All Usage	28,004,485	27,366,791	30,169,150

Keterangan: Terdapat perubahan penyampaian data 2019 dan 2018 dengan laporan tahun sebelumnya karena perubahan metode perhitungan. [102-48]

Note: There is a change in the submission of data for 2019 and 2018 with the previous year's report due to a change in the calculation method. [102-48]

*Tidak termasuk data konsumsi di kantor Jakarta dan Makassar

* Excludes consumption data at the Jakarta and Makassar

Total biaya energi tahun 2020 mencapai 31,6% dari biaya produksi nikel dalam matte. Strategi efisiensi, inovasi berkelanjutan dan operasi unggul memberikan kontribusi signifikan penurunan biaya produksi pada periode pelaporan. Lihat halaman 64.

Total energy costs in 2020 accounted for 31.6% of the cost of nickel in matte production. Efficiency strategies, continuous innovations, and superior operations contributed significantly to reducing production costs in the reporting period. See page 64.





Realisasi efisiensi energi pada tahun 2020: [POJK51-6.d.3.b]

- PT Vale telah menggunakan bahan bakar nabati (BBN) *Fatty Acid Methyl Ester* (FAME) hingga 30% sebagai biodiesel, untuk kendaraan operasional. Total volume pemakaian biodiesel tahun 2020 mencapai 77,17 juta liter (B30), berkurang 11,3% dibanding tahun 2019 (B20 dan B30) sebesar 86,96 juta liter.

Volume Penggunaan Bahan Bakar (Juta Liter)

Fuel Usage Volume (Million Litre)

Tahun Year	Volume Bahan Bakar (Juta Liter) Fuel Volume (Million Litres)				Percentase Percentage	
	Bahan Bakar Minyak (BBM) Fossil Fuel			Bahan Bakar Nabati (BBN) Biofuel		
	HSFO	HSD	Jumlah Total			
2020	208.32	77.17	285.49	23.15	8.1%	
2019	226.33	86.96	313.29	17.39	5.55%	
2018	250.90	67.66	318.56	11.94	3.75%	



Keterangan: Terdapat perubahan penyampaian data 2019 dan 2018 dengan laporan tahun sebelumnya karena perubahan metode perhitungan. [102-48]

Note: There is a change in the submission of data for 2019 and 2018 with the previous year's report due to a change in the calculation method. [102-48]

- Kami berkomitmen terus mengembangkan Energi Baru dan Terbarukan (EBT). Tidak hanya untuk kegiatan operasional dan bisnis Perseroan, tapi juga mendukung program Pemerintah Indonesia meningkatkan bauran EBT. Pengembangan EBT yang dilakukan berbasis produk nikel sebagai transisi menuju ekonomi rendah karbon, di antaranya untuk produksi baterai mobil listrik pada masa depan. PT Vale juga sudah melakukan studi dan rencana mencari sumber lain EBT, seperti *heat recovery*, mikrohidro, angin dan tenaga matahari.

- We are committed to continuing to develop New and Renewable Energy (NRE). Not only for the Company's operational and business activities, but also for supporting the Indonesian Government's program to increase the NRE mix. The development of NRE is being carried out on nickel-based products as a transition towards a low-carbon economy, including for the production of electric car batteries in the future. PT Vale has also conducted studies and plans to find other sources of NRE, such as heat recovery, micro hydro, wind, and solar power.

Intensitas Energi

Nilai Intensitas Energi tahun 2020 mencapai 389,84 GJ untuk setiap ton produksi nikel dalam *matte*. Nilai tersebut lebih rendah dibanding tahun 2019 sebesar 396,09 GJ/ton. Hal ini disebabkan pada tahun 2019 terdapat pelaksanaan proyek *canal lining* yang menyebabkan PLTA Larona *shutdown* selama sekitar tiga bulan. [302-3][POJK51-6.d.3.a]

Energy Intensity

The total Energy Intensity in 2020 for each ton of nickel in matte production was 389.84 GJ, lower than the 396.09 GJ per ton in 2019. This was due to the canal lining project that led to the shutdown of PLTA Larona for about three months in 2019. [302-3][POJK51-6.d.3.a]

Hasil Pengukuran Intensitas Energi

Energy Intensity Measurement Results [302-3][POJK51-6.d.3.a]

Uraian Description	Satuan Unit	2020	2019	2018
Jumlah Produksi Nikel Total Nickel Production	Ton	72,237	71,025	74,806
Jumlah Energi Terpakai* Total Energy Used	GJ	28,004,485	27,366,791	30,169,150
Intensitas Energi* Energy Intensity	GJ/Ton	389.84	396.09	405.54

Keterangan:

*Terdapat perubahan penyampaian data 2019 dan 2018 dengan laporan tahun sebelumnya karena perubahan metode perhitungan.[102-48]

Note:

There is a change in the submission of data for 2019 and 2018 with the previous year's report due to a change in the calculation method. [102-48]





Menuju Pascatambang Karbon Netral

Towards Carbon Neutral Post-mining



Pendekatan Manajemen

Management Approach [103-1][103-2][103-3]

Reklamasi lahan pascatambang bertujuan memperbaiki ekosistem lahan pascatambang dan sebagai kepatuhan hukum. PT Vale berkomitmen membatasi luas lahan terbuka untuk kegiatan operasi pertambangan, dan melaksanakan pengelolaan keanekaragaman hayati di wilayah operasi pertambangan sesuai Persetujuan 188.4/66/II/BAPEDALDA. Selain itu, PT Vale juga melakukan kegiatan rehabilitasi lahan dan penghutanan lintas batas, di luar area operasi pertambangan. Dengan dukungan sumber daya dana reklamasi pascatambang tahun 2020 sebesar AS\$4.169.683 dan pusat pembibitan, pada periode pelaporan Perseroan merealisasikan lahan reklamasi pascatambang seluas 176,24 ha, dengan luas kumulatif 3.021,44 ha. Kami berinisiatif meningkatkan komposisi pohon perintis lokal hingga 40% pada kegiatan revegetasi. Pelaksanaan kegiatan reklamasi pascatambang menjadi tanggung jawab Fungsi Environment and Energy dan dievaluasi Direksi melalui mekanisme penilaian pelaporan berkala kepada pihak-pihak berwenang. Hasil evaluasi menunjukkan kegiatan reklamasi berjalan sesuai perencanaan. [POJK51-6.d.1]

Post-mining land reclamation aims to improve the post-mining land ecosystem as a legal compliance. PT Vale is committed to limiting the area of open land used in its mining operations, and manages the biodiversity in the mining operational areas in accordance with Agreement 188.4/66/II/BAPEDALDA. PT Vale also carries out land rehabilitation and cross-border forestry activities outside the mining operational areas. With a post-mining reclamation fund in 2020 of US\$4,169,683 and a nursery center, during the reporting period the Company rehabilitated 176.24 ha of post-mining land, bringing its total reclaimed land to 3,021.44 ha. During revegetation, we initiated an increase in the composition of local pioneer trees by up to 40%. The post-mining reclamation activities are the responsibility of the Environment and Energy Function and their work is evaluated by the Board of Directors through a periodic reporting assessment mechanism to the authorized parties. The assessment results show that the reclamation activities are proceeding according to plan. [POJK51-6.d.1]

Penghijauan Lintas Batas

Sebagai dukungan pada kebijakan Vale Global untuk menuju transisi ekonomi rendah karbon, pada periode pelaporan PT Vale memperluas kegiatan penghijauan lintas batas. PT Vale tidak hanya melakukan penghijauan di Blok Sorowako yang merupakan area operasi pertambangan, tapi juga di tempat lain.

Realisasi kegiatan rehabilitasi lahan dan penghutan lintas batas dilaksanakan sepanjang tahun 2020.

Pelaksanaan Kegiatan Reklamasi Pascatambang

PT Vale menjalankan kegiatan pertambangan terbuka, meliputi pembukaan lahan dan pengupasan lapisan permukaan tanah; penggalian material tanah dan material tambang; serta pengangkutan material tanah dan material tambang. Kegiatan yang berlangsung berpotensi menimbulkan dampak terhadap keanekaragaman hayati, perubahan rona alam, dan ekosistemnya. Dampak tersebut dikelola dengan melakukan identifikasi dan memindahkan spesies terdampak, dari lokasi kegiatan pertambangan ke lokasi lain termasuk area reklamasi pascatambang. Secara berkala, Perseroan melakukan penyiraman jalan tambang untuk mengurangi debu dari kendaraan operasional yang melintas. PT Vale juga menerapkan kebijakan membatasi luasan area dibuka untuk kegiatan pertambangan. [304-2]

Sesuai dokumen laporan jaminan reklamasi periode 2018–2022 yang disetujui Kementerian ESDM, untuk tahun 2020 luasan sisa lahan terbuka dibatasi maksimal 2.198,75 hektar. Realisasi luas lahan yang dibuka untuk operasi pertambangan selama periode pelaporan mencapai 281,44 hektar, sehingga luasan kumulatif lahan untuk operasi pertambangan hingga akhir tahun 2020 menjadi 2.076,42 hektar.

Luas lahan tambang yang direklamasi pada tahun 2020 mencapai 176,24 hektar, atau 101,46% dari target 173,71 hektar, sehingga secara kumulatif luas lahan reklamasi pascatambang hingga 31 Desember 2020 menjadi 3.012,44 hektar. Dengan demikian total luasan sisa lahan terbuka untuk kegiatan pertambangan pada tahun 2020 adalah 281,44 hektar, sehingga telah memenuhi batasan yang ditetapkan. Pada akhir periode pelaporan, kondisi lahan yang sudah direhabilitasi dikembalikan seperti awal peruntukannya. [304-3][MM1][POJK51-6.e.3.b]

Reforestation Beyond Boundary

In support of Vale Global's policy towards a low carbon economy transition, during the reporting period PT Vale expanded its cross-border reforestation. PT Vale does not only reforest the Sorowako Block, which is a mining operation area, but also in other places.

The land rehabilitation and beyond boundary forestry activities in 2020 took place throughout the year.

Implementation of Post-mining Reclamation Activities

PT Vale mining activities involve open-pit mining, including land clearing and stripping the topsoil; excavation of soil and mining materials, and the transport of soil and mining materials. These activities have the potential to impact biodiversity, and to change the natural landscape and its ecosystem. Managing these impacts involves identifying and transferring affected species from the mining areas to other locations including post-mining reclamation areas. The Company regularly hoses down the mining roads to reduce dust from passing operational vehicles. PT Vale has also implemented a policy for limiting the areas opened for mining activities. [304-2]

Based on its 2018-2022 reclamation guarantee report document, approved by the Ministry of Energy and Mineral Resources, in 2020 the remaining open land areas is limited to a maximum of 2,198.75 ha. The area of land cleared for mining operations during the reporting period was 281.44 ha, resulting in a total area of land for mining operations by the end of 2020 of 2,076.42 ha.

The reclaimed mining land in 2020 was 176.24 ha, or 101.46% of the target of 173.71 ha, resulting in a total area of post-mining reclaimed land until December 31, 2020 of 3,012.44 ha. Thus the total area of remaining open land for mining activities in 2020 is 281.44 ha, within the specified limits. At the end of the reporting period, the land that has been rehabilitated was returned to its initial condition suitable for its designated purpose. [304-3][MM1][POJK51-6.e.3.b]



Luasan Lahan Terganggu dan Direhabilitasi (Ha)

Area of Disturbed and Rehabilitated Land (Ha) [304-3][MM1][POJK51-6.e.3.b]

Tahun Year	Total Luas Area Terganggu Pada Awal Tahun yang Belum Direhabilitasi	Luas Area Terganggu pada Tahun 2020	Jumlah Lahan yang Direhabilitasi Tahun 2020	Total Luas Area Terganggu Pada Akhir Tahun yang Belum Direhabilitasi
	Total Area of Unrehabilitated Disturbed Land at the Beginning of Year	Total Area of Disturbed Land in 2020	Total Area of Rehabilitated Land in 2020	Total Area of Unrehabilitated Disturbed Land at End of Year
	(1)	(2)	(3)	1+2-3
2020	1,971.22	281.44	176.24	2,076.42
2019	1,807.8	286.56	81.09	2,013.27
2018	1,565.70	197.54	93.91	1,669.33

Wilayah operasi pertambangan PT Vale merupakan milik sendiri, berdasarkan Kontrak Karya dengan Pemerintah Indonesia yang telah diamandemen tahun 2014. Sebagian dari luas wilayah operasi di Sorowako, yakni 41.822,95 ha atau 59% dari total 70.894 ha, berdekatan dengan kawasan dilindungi berupa hutan lindung. PT Vale telah mendapatkan Izin Pinjam Pakai Kawasan Hutan (IPPKH) dari KLHK sesuai SK No. 645/MenLHK/SetJen/PLA.0/12/2018.

[304-1][POJK51-6.e.3.a]

PT Vale juga telah mendapatkan IPPKH untuk kegiatan operasi dan produksi di Bahodopi Blok I di Kabupaten Morowali, Sulawesi Tengah, seluas 2.143,14 Ha sesuai SK Menteri LHK No. SK.341/Menlhk/Setjen/PLA.0/5/2019. Perseroan mendapatkan perpanjangan ke-2 IPPKH untuk kegiatan eksplorasi di Bahodopi seluas 12.820,60 Ha, sesuai SK Menteri LHK No. SK.522/ Menlhk/Setjen/PLA.0/11/2018. Untuk di Blok Pomalaa, Kabupaten Kolaka, Sulawesi Tenggara, PT Vale telah mendapatkan IPPKH untuk kegiatan eksplorasi seluas 12.563,10 Ha sesuai Keputusan Kepala Badan Koordinasi Penanaman Modal No. 6/1/IPPKH/PMA/2018. [POJK51-6.e.3.a]

PT Vale's mining operational areas are self-owned, based on the 2014 amended Contract of Work with the Indonesian Government. A portion of the operational area in Sorowako, totaling 41,822.95 ha, or 59% of the total 70,894 ha, is adjacent to protected forests. PT Vale has a Licence-to-Use Forest Area Permit (IPPKH) from the Ministry of Environment and Forestry through Decree SK No. 645/MenLHK/SetJen/PLA.0/12/2018. [304-1][POJK51-6.e.3.a]

PT Vale has also obtained an IPPKH for production operations in Bahodopi Block I in Morowali Regency, Central Sulawesi, covering an area of 2,143.14 ha based on Minister of Environment and Forestry Decree No. SK. 341/Menlhk/Setjen/PLA.0/5/2019, as well as a 2nd IPPKH extension for exploration activities in Bahodopi covering an area of 12,820.60 Ha, based on Minister of Environment and Forestry Decree No. SK.522/Menlhk/Setjen/PLA.0/11/2018. For the Pomalaa Block, Kolaka Regency, Southeast Sulawesi, PT Vale has obtained an IPPKH for exploration activities covering an area of 12,563.10 ha based on the Head of the Investment Coordinating Board Decree No. 6/1/IPPKH/PMA/2018. [POJK51-6.e.3.a]

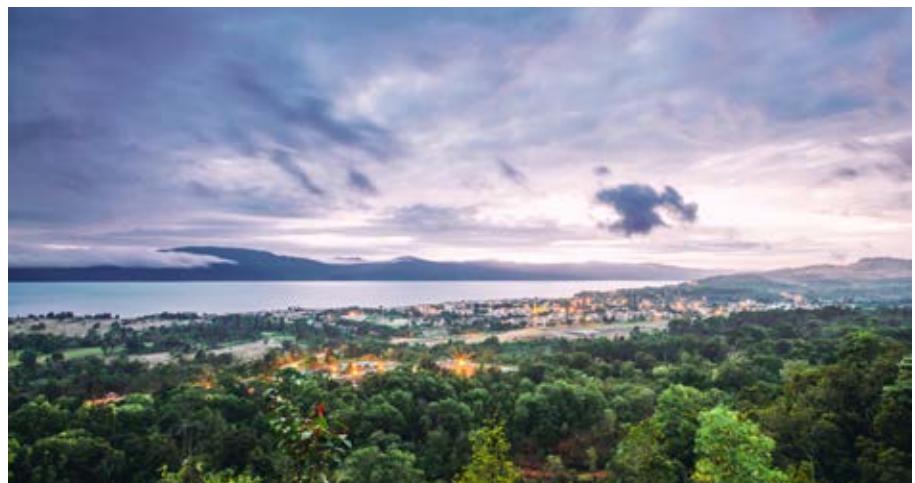


Menjaga Keanekaragaman Hayati

PT Vale berkomitmen menjalankan rencana manajemen keanekaragaman hayati, mencakup seluruh (100%) wilayah operasi pertambangan di Blok Sorowako. Hingga akhir periode pelaporan, pengelolaan telah terlaksana 100%. Pada tahun 2020, PT Vale telah melakukan studi terkait daftar spesies yang dilindungi dengan Universitas Hasanuddin, dari hasil studi tercatat spesies fauna dan flora yang dilindungi dan terancam punah. Daftar spesies dilindungi berdasarkan daftar merah IUCN dapat dilihat pada Lampiran 3 dalam Laporan ini. [304-4] [MM2][POJK51-6.e.3.b]

Maintain Biodiversity

PT Vale is committed to implementing a biodiversity management plan, covering all (100%) mining operations in the Sorowako Block, and during the reporting period, its management has been carried out 100%. In 2020, PT Vale conducted a study with Universitas Hasanuddin to list the protected species. The study recorded the protected and endangered species of fauna and flora. A list of protected species based on the IUCN Red List can be seen in Appendix 3 of this Report. [304-3][MM2][POJK51-6.e.3.b]





Untuk mendukung reklamasi pascatambang, PT Vale memiliki fasilitas pembibitan pohon (*nursery*) dengan kapasitas produksi per tahun mencapai 700.000 bibit berbagai jenis. Pelaksanaan reklamasi pascatambang dilakukan dengan melibatkan pihak ketiga, dan memperhatikan UU No.4 Tahun 2009 tentang Penambangan Mineral dan Batubara. Secara berkala, perkembangannya dilaporkan kepada pihak-pihak berwenang. Berdasarkan hasil pemantauan, dipastikan hingga akhir tahun 2020 kondisi tanaman pada lahan yang telah direklamasi dalam kondisi tumbuh baik.

PT Vale juga mewujudkan komitmen pada rehabilitasi lahan dan reklamasi melalui alokasi provisi keuangan. Provisi keuangan masuk dalam komponen biaya lingkungan dalam Laporan Keuangan Perusahaan. Sesuai regulasi, Perseroan memiliki rencana penutupan tambang (RPT) di seluruh (100%) area operasional tambang di wilayah Sorowako, dan menyertakan jaminan terhadap penutupan tambang. [MM10] [POJK51-6.d.1]

To support post-mining reclamation, PT Vale has a nursery with an annual production capacity of 700,000 seedlings of various types. Post-mining reclamation is carried out by third parties, and pays due regard to the 2009 Law No.4 concerning Mineral and Coal Mining, with the progress reported periodically to the authorities. Based on monitoring results, it was confirmed that as at the end of 2020 the plants on reclaimed land were in good condition.

PT Vale also embodies its commitment to land rehabilitation and reclamation by the allocation of financial reserves that are included in the environmental cost component in the Company's Financial Statements. In line with the regulations, the Company has a mine closure plan (RPT) covering all (100%) of the mining areas in the Sorowako area, and includes guarantees for mine closure. [MM10][POJK51-6.d.1]

Tindakan Cepat Cegah Bencana

Komitmen PT Vale menerapkan praktik-praktik terbaik pengelolaan lingkungan, mampu mendorong tindakan cepat mencegah bencana. Pada periode pelaporan, Tim Civil & Road Maintenance merampungkan perbaikan jalan poros Sorowako-Malili Kilometer (KM) 17, yang sebelumnya mengalami longsor sehingga menghambat akses lalu lintas umum maupun unit-unit pengangkut logistik dan nikel olahan PT Vale. Upaya perbaikan dilakukan dengan tindakan cepat dan tepat agar arus lalu lintas dapat kembali normal, dengan tetap memperhatikan aspek keselamatan pengguna jalan. Perbaikan jalan di KM 17 diatasi dengan melakukan pelebaran jalan dan pembuatan bench pada tebing sampai ke bahu jalan. Hal ini untuk mengantisipasi terjadinya longsor karena di bagian bawah area tersebut terdapat sungai, tanahnya labil dan beban jalan yang sering dilalui alat berat dengan frekuensi tinggi ditambah faktor curah hujan yang tidak menentu. Total biaya perbaikan mencapai AS\$320.000. [201-2]

Tindakan cepat PT Vale juga mampu mengendalikan kerusakan tanggul pembatas di kawasan lokasi pertambangan, akibat beban air yang melimpah karena hujan deras pada 5 Februari 2020 dengan intensitas 63 mm/jam. Limpasan air hujan telah membuat salah satu tanggul tambang terikis dan menyebabkan air melimpah dan mengalir ke kolam pengendapan sedimen (*sediment pond*) secara berjenjang sebelum masuk ke Petea Far East dan sebagian lagi dialirkannya ke kolam pengendapan Petea East, guna mengurangi beban. Perseroan melakukan pemantauan air limpasan setiap 4 jam sekali untuk memastikan tidak berbahaya bagi lingkungan dan melaporkan ke Dinas Lingkungan Hidup Kabupaten Luwu Timur.



Quick Action to Prevent Disaster

PT Vale's commitment to implementing best environmental management practices is to encourage quick action to prevent disasters. During the reporting period, the Civil & Road Maintenance Team completed repairs to the Sorowako-Malili Kilometer (KM) 17 axis road, which had previously experienced a landslide hampering public traffic access and PT Vale's processed nickel and logistics transport units. Improvements were made by taking quick and precise action to enable the traffic flow to return to normal, while still paying attention to the safety aspects of road users. The KM 17 road improvements included widening the road and installing benches (steps) on the cliffs along the shoulder of the road. This was done to avoid landslides as there is a river at the bottom of the area, the soil is unstable, and there is a high frequency of heavy equipment passing along the road, plus the potential for erratic rainfall. The total repair cost was US\$320,000. [201-2]

PT Vale's quick action helped to control damage to the dividing embankments in the mining area, due to heavy rains on February 5, 2020 with an intensity of 63 mm/hour. The rainwater runoff had eroded one of the mine embankments and caused water to overflow and flow into the sediment pond before entering Petea Far East, and partially into the Petea East sedimentation pond, reducing the water load. The Company monitors the runoff water every four hours to ensure it is not a danger to the environment, and reports the results to the Environmental Agency in East Luwu Regency.





Inspirasi untuk Lingkungan Lestari

Inspiration for a Sustainable Environment



Kepatuhan pada Regulasi Lingkungan

PT Vale berkomitmen untuk terus mematuhi regulasi lingkungan, bahkan melakukan praktik yang lebih dari persyaratan. Untuk penilaian Juni 2020, PT Vale mendapatkan PROPER Biru yang menandakan ketiaatan pada kepatuhan lingkungan.

Compliance with Environmental Regulations

PT Vale is committed to complying with environmental regulations continuously, even going beyond compliance. For the June 2020 assessment, PT Vale received the Blue PROPER award which signifies adherence to environmental compliance.

Lomba Konten Lingkungan Hidup

Kami terus mendorong keterlibatan semua pihak dan sumber daya, untuk mendukung pelestarian lingkungan. PT Vale menggagas penyelenggaraan lomba konten lingkungan hidup. Lomba dimaksudkan untuk membangun kesadaran karyawan, keluarga karyawan maupun publik bahwa pertambangan masa depan adalah pertambangan berkelanjutan dan peduli pada pelestarian lingkungan. Melalui lomba ini diharapkan para karyawan, keluarga karyawan dan publik menjadi lebih paham dan berkontribusi lebih besar sesuai peran masing-masing, dalam mendukung penerapan salah satu Nilai Utama Vale, yakni Prize Our Planet, Menjaga Kelestarian Bumi.

Mengelola Efluen dan Menjaga Danau [303-2]

Sampai dengan akhir periode pelaporan, PT Vale memiliki fasilitas pengolahan efluen, yakni Lamella Gravity Settler (LGS) di Blok Sorowako yang dibangun tahun 2014 dengan kapasitas olah 4.000 m³/jam. Selain itu, ada Pakalangkai Waste Water Treatment (WWT), dibangun tahun 2013 dan dilengkapi 85 kolam pengendapan.

Secara berkala, Perseroan melakukan analisis hasil olahan efluen dengan parameter kadar logam berat. Analisis dilakukan oleh laboratorium independen terakreditasi, menggunakan metode SNI 6989.59:2008 Air dan Air Limbah, serta Standard Methods for the Examination of Water and Wastewater 21st Edition (2005), 1060, Collection and Preservation. Tujuannya memastikan hasil olahan efluen memenuhi baku mutu sesuai Peraturan Menteri Lingkungan Hidup No.9 tahun 2006 tentang Baku Mutu Air Limbah bagi Usaha dan/atau Kegiatan Pertambangan Bijih Nikel. Dari hasil pemeriksaan pada tahun 2020, diketahui kualitas hasil olahan efluen telah memenuhi baku mutu. [POJK51-6.e.3.a]

Environmental Content Competition

We continue to encourage the involvement of all parties and human resources in supporting environmental conservation, and have initiated an environmental content competition. The competition is intended to build awareness among employees, employees' families and the public that the future of mining is in sustainable mining that cares about environmental conservation. Through this competition, the hope is that employees, employees' families and the public will understand and contribute more according to their respective roles. It also supports one of Vale's Core Values, namely Prize Our Planet, Maintaining the Earth's Conservation.

Managing Effluents and Maintaining Lakes [303-2]

At the end of the reporting period, PT Vale had an effluent processing facility, the Lamella Gravity Settler (LGS) in the Sorowako Block, built in 2014 with a processing capacity of 4,000 m³/hour. In addition, the Pakalangkai Waste Water Treatment (WWT) plant was built in 2013 together with 85 settling ponds.

The Company regularly analyzes the processed effluent against heavy metal content parameters. The analysis is carried out by an accredited independent laboratory, using the SNI 6989.59: 2008 Method for Water and Wastewater, and the Standard Methods for the Examination of Water and Wastewater 21st Edition (2005), 1060, Collection and Preservation. The goal is to ensure that the effluent processed meets quality standards in accordance with the Minister of Environment Regulation No.9 of 2006 concerning Quality Standards for Wastewater by Nickel Ore Mining Businesses and/or Activities. The results for 2020, showed that the processed effluent met the quality standard. [POJK51-6.e.3.a]





Hasil Pengukuran Kualitas Efluen Tahun 2020

Effluent Quality Measurement Results

Lokasi Pengukuran Measurement Location	Volume Diolah (m ³) Volume Processed (m ³)	Hasil Pengolahan Tiap Parameter Processing Result per Parameter				
		TSS <200 ppm	Cr Total 0.5 ppm	Cr ⁶⁺ 0.1 ppm	Fe 5 ppm	Ni 0.5 ppm
Petea Timur East Petea	17,487,119	22	0.03	0.02	0.84	0.013
Petea Barat West Petea	33,206,944	15	0.03	0.03	0.40	0.014
Petea Timur Jauh Far East Petea	21,194,779	20.13	0.03	0.01	0.41	0.008
Lorraine Lorraine	2,015,809	11.08	0.03	0.01	0.12	0.028
Kathryn Kathryn	2,756,796	5.33	0.02	0.005	0.03	0.008
Lamoare Creek A (LCA) Lamoare Creek A (LCA)	3,392,481	8.00	0.03	0.01	0.09	0.012
Lamangka 1 (LMK 1) Lamangka 1 (LMK 1)	1,644,125	6.5	0.03	0.02	0.24	0.013
Lamangka 2 (LMK 2) Lamangka 2 (LMK 2)	33,524,522	10.17	0.04	0.02	0.50	0.015
Lamangka 3 (LMK 3) Lamangka 3 (LMK 3)	9,818,754.4	19.08	0.03	0.01	0.17	0.019
Pencucian Mobil Petea Petea Washing Pad	1,559	10.75	0.03	0.01	0.04	0.023

Kami terus menjaga kelestarian Danau Matano, Mahalona dan Towuti, yang telah ditetapkan sebagai Kawasan Konservasi Taman Wisata Alam. Penetapan berdasarkan Surat Keputusan Menteri Pertanian No. 274/Kpts/Um/4/1979 tanggal 24 April 1979. Selama periode pelaporan, PT Vale melakukan berbagai upaya untuk meningkatkan daya dukung ekosistem danau dan menjaga kelestariannya. [304-1][POJK51-6.e.2]

- PT Vale bersama komunitas Mokole Nuha dan pemangku kepentingan lain melakukan penanaman 1.000 batang pohon bakau air tawar endemik, atau tembeuwa (*Kjellbergiodendron celebicum*). Penanaman dilakukan di Soluro, pesisir barat Danau Matano, yang telah ditetapkan sebagai Kawasan Hutan Konservasi berdasarkan SK No.362/Menlhk/Setjen/PLA.0/5/2019. Seluruh bibit bakau berasal dari fasilitas *nursery* perusahaan. Kegiatan ini diikuti edukasi kepada masyarakat tentang pentingnya menjaga ekosistem danau. Penanaman bakau bertujuan menjaga fungsi dan kondisi area pesisir Danau Matano, dan akan diikuti kegiatan lanjutan jangka panjang untuk mengetahui efek penanaman bakau terhadap konservasi pesisir danau.

We continue our preservation of the Matano, Mahalona and Towuti Lakes that were designated as Nature Tourism Park Conservation Areas, based on the Minister of Agriculture Decree No. 274/Kpts/Um/4/1979 dated April 24, 1979. During the reporting period, PT Vale worked to improve the lakes' ecosystem carrying capacity, and maintain their sustainability. [304-1][POJK51-6.e.2]

- PT Vale, together with Mokole Nuha community and other stakeholders, planted 1,000 endemic freshwater mangrove trees (tembeuwa - *Kjellbergiodendron celebicum*). Planting took place in Soluro, on the west coast of Lake Matano, which was designated as a Conservation Forest Area based on Decree No. 362/Menlhk/Setjen/PLA.0/5/2019. All mangrove seedlings come from the Company's nursery facilities. Part of this activity includes educating the public on the importance of protecting the lake ecosystem. Mangrove planting helps maintain the function and condition of the coastal area of Lake Matano, and will be followed up by long-term activities to determine the effect of the mangrove planting on the lake's conservation.

- Dalam mencegah atau mengurangi laju sedimentasi di Danau Matano dan Danau Mahalona yang disebabkan oleh kegiatan pertambangan, PT. Vale melakukan upaya-upaya pengelolaan lingkungan, di antaranya dengan membangun sistem drainase tambang dan pengolahan air limbah. Untuk mengetahui pengaruh kegiatan pertambangan dan kegiatan. Lebih lanjut, PT Vale bekerja sama dengan Pusyantek BPPT melakukan kajian peningkatan sedimentasi.
- To prevent or reduce the sedimentation rate in Lake Matano and Lake Mahalona caused by mining activities, PT. Vale has instigated environmental management efforts, including building mine drainage and wastewater treatment systems. To ascertain the effect of its mining activities and other activities, PT Vale in collaboration with Pusyantek BPPT has conducted a study on increased sedimentation.

Pengelolaan dan Pengolahan Limbah

[306-1] [306-2][MM3][EM-MM-150a.2]

Jenis timbulan limbah padatan dari proses produksi nikel dalam *matte* adalah *slag* nikel, terdiri dari *furnace slag* dan *converter slag*. Sampai dengan akhir periode pelaporan, *slag* nikel masih digolongkan limbah mengandung bahan berbahaya dan beracun (B3). PT Vale telah memiliki izin mengelola *slag* nikel, yakni Izin Pemanfaatan Limbah B3 Nomor SK 121/Menlhk/Setjen/PLB.3/2/2018 dari KLHK.

Pengelolaan limbah *furnace slag* dan *converter slag* dilakukan untuk mengurangi risiko pencemaran terhadap tanah dan air, karena saat ini masih dinyatakan sebagai limbah B3. Pengelolaan limbah padatan lain berupa *overburden* dan lapisan tanah pucuk, dilakukan untuk mengurangi risiko erosi.

Pengelolaan dilakukan dengan cara diangkut dan dikumpulkan di tempat penampungan di *scrap yard*. Pengangkutan dilakukan pihak ketiga dengan prosedur ketat yang ditetapkan perusahaan, guna mencegah tumpahan. Selama tahun 2020, tidak ada laporan maupun pengaduan terkait proses pengangkutan *slag* nikel. Di tempat penampungan, *slag* nikel dimanfaatkan menjadi material konstruksi jalan tambang dan konstruksi lapis atas jalan khusus tambang. Jumlah volume timbulan *slag* nikel pada tahun 2020 mencapai 4.322.925 ton, dan jumlah volume yang dimanfaatkan sebesar 3.810.733 ton atau 91%. [306-4][306-5][POJK51-6.e.5.a][POJK51-6.e.5.b][POJK51-6.e.5.c]

Waste Management and Processing

[306-1] [306-2][MM3][EM-MM-150a.2]

The solid waste produced from nickel in matte production is nickel slag, which consists of furnace slag and converter slag. At the end of the reporting period, nickel slag is still classified as a hazardous and toxic waste (B3), and PT Vale has a nickel slag management permit, under the B3 Waste Utilization License Number SK 121/Menlhk/Setjen/PLB.3/2/2018 from the Ministry of Environment and Forestry.

Furnace slag and converter slag waste management is carried out to reduce the risk of contamination to soil and water, as currently they are still classified as B3 waste. Other solid waste management for overburden and topsoil is carried out to reduce the risk of erosion.

Waste management is carried out by it being transported and stored at scrap yards. Transportation is carried out by a third party with strict procedures established by the Company, to prevent spills. During 2020 there were no reports or complaints related to transporting nickel slag. In the scrap yards, the nickel slag is processed into construction material for mining roads as a top layer. The total slag produced in 2020 reached 4,322,925 tons, with 3,810,733 tons or 91% being reused. [306-4][306-5][POJK51-6.e.5.a][POJK51-6.e.5.b][POJK51-6.e.5.c]





Jenis dan Volume Limbah Padatan B3 dari Produksi Nikel dalam Matte

Types and Volume of Hazardous and Toxic Solid Waste Form Nickel in Matte Production [EM-MM-150a.2]

Jenis Limbah Type of Waste	Satuan Unit	2020	2019	2018
<i>Furnace Slag</i>	Ton	3,928,494	3,782,530	4,112,126
<i>Converter Slag</i>		394,431	509,202	515,701
Jumlah Total		4,322,925	4,291,732	4,627,827

Untuk limbah padatan lain yang mengandung B3, dikelola dan diolah sesuai karakteristik masing-masing, baik untuk keperluan internal maupun diserahkan kepada pihak ketiga berizin. Selain itu, tidak ada limbah berbahaya yang dikirim secara internasional. Uraian disampaikan dalam tabulasi. [306-3][306-4][POJK51-6.e.5.a][POJK51-6.e.5.b]

Other B3 solid waste is managed and processed based on its respective characteristics, internally or through licensed third parties. No hazardous waste is shipped internationally. The methods used are presented in the following table. [306-3][306-4][POJK51-6.e.5.a][POJK51-6.e.5.b]

Limbah B3 dari Kegiatan Pengolahan/Penunjang dan Metode Pengelolaan

Hazardous and Toxic Waste from Processing/Supporting Activities and Management Methods

Jenis Limbah Type of Waste	Metode Pengelolaan Management Method	Jumlah Diolah (Ton) Amount Processed (Ton)		
		2020	2019	2018
Oli dan Gemuk Bekas Used Lubricants and Grease	Sebagai tambahan bahan bakar pada proses pengolahan bijih nikel pada <i>dryer</i> dan <i>kiln</i> Fuel additive for nickel ore processing in the dryers and kilns	1,138.8	1,775.9	1,281.70
Terak Tanur Listrik Furnace Slag	Sebagai penunjang operasi tambang Mining operations support	3,928,494	3,782,530	4,122,565
Filter, Kain Majun dan Material Terkontaminasi Filters, Cloth, and Contaminated Materials	Sebagai penunjang operasi tambang Mining operations support	676.2	320.9	219.6
Bahan Kimia Kadaluwarsa Expired Chemical Reagents	Diserahkan pada pihak ketiga Sent to third parties	15.2	39.5	55.9
Baterai dan Aki Bekas Used Batteries		78.2	53.8	51.6
Cat dan Bahan Kimia Paints and Chemicals		40.2	2.2	9.8
Asbes Asbestos		3.2	0.9	2.0
Limbah Medis Medical Waste	Dimusnahkan di <i>incenerator</i> dan abu pembakaran dikirim kepada pihak ketiga Burnt in incinerators and ash sent to third parties	3.5	2.4	1.56

Limbah padatan lain adalah *overburden* dan lapisan tanah pucuk (*top soil*) yang tidak mengandung B3. Pengelolaan dilakukan dengan cara menjadi material timbun proses rehabilitasi/reklamasi pasca-tambang. Selain itu, ada sampah domestik yang pengelolaannya diserahkan kepada bank sampah yang dikelola masyarakat, lihat halaman 100. [306-4]
[306-5]

Other solid waste includes overburden and topsoil that does not contain hazardous and toxic waste, and is managed as materials used in the post-mining rehabilitation/reclamation process. There is also domestic waste whose management is left to community-managed waste banks, see page 100. [306-4][306-5]

Jenis dan Volume Limbah Padatan Bukan B3 dari Kegiatan Penambangan Types and Volume of Non-Hazardous and Toxic Solid Waste from Mining Activities

Jenis Limbah Type of Waste	Satuan Unit	Volume Dihasilkan Volume Generated		
		2020	2019	2018
Tanah Pucuk Topsoil	WMT	898,824	413,559	468,455
Overburden		40,730,655	42,968,601	40,574,694

Jenis dan Volume Limbah Padatan Bukan B3 dari Kegiatan Penunjang Non-Hazardous and Toxic Waste from Processing/Supporting Activities

Jenis Limbah Type of Waste	Satuan Unit	Volume Dihasilkan (Ton) Volume Generated (Ton)		
		2020	2019	2018
Limbah Domestik* Domestic Waste	Ton	479,842	484,791	42,000
Limbah Scrap Logam Metal Scrap Waste		4,615	9,985	6,922

*Terdapat perubahan penyampaian data 2019 dan 2018 dengan laporan tahun sebelumnya karena perubahan metode perhitungan. [102-48]

*There is a change in the submission of data for 2019 and 2018 with the previous year's report due to a change in the calculation method. [102-48]







Inspirasi Pengelolaan Sosial Social Management Inspiration





Kami berkomitmen pada kesejahteraan bersama, berbasis kepedulian terhadap manusia dan alam. Sejak hadir beroperasi di Indonesia, PT Vale terus memberikan kontribusi kepada para pemangku kepentingan, di antaranya karyawan dan pekerja kontraktor/pemasok, serta masyarakat di sekitar wilayah kegiatan termasuk penduduk asli.

We are committed to mutual well-being, based on caring for people and nature. Since starting its operations in Indonesia, PT Vale has continuously contributed to stakeholders, including employees and contractors/suppliers, as well as to communities and indigenous peoples around our operational areas.



Keselamatan dan Kesehatan Kerja (K3)

Occupational Health
and Safety (OHS)



Pendekatan Manajemen Management Approach [103-1][103-2][103-3]

PT Vale memiliki kebijakan penerapan K3, yaitu Kepmen 1827 K/30/MEM/2018 Lampiran IV Penerapan Sistem Manajemen Keselamatan Pertambangan Mineral dan Batubara, serta Sistem Manajemen Keselamatan Pertambangan Mineral dan Batubara (SMKP Minerba). Kami berkomitmen mewujudkan nihil kecelakaan kerja fatal dan meminimalkan penyakit akibat kerja (PAK). Pada periode pelaporan, PT Vale berinisiatif menerapkan *Safe Work Permit* (SWP) dan protokol kesehatan untuk pengendalian pandemi COVID-19 dalam setiap kegiatan perusahaan. Kepatuhan terhadap K3 menjadi tanggung jawab Kepala Tambang bersama Chief Operating Officer, dan dievaluasi Direksi melalui penilaian laporan berkala serta pencapaian *key performance indicators*. Dari hasil evaluasi, diketahui selama tahun 2020 Perseroan berhasil mencapai nihil kecelakaan kerja fatal dan 9.571.366 jam kerja selamat.

PT Vale's OHS management policy complies with Ministerial Decree 1827 K/30/MEM/2018 Appendix IV Implementation of Mineral and Coal Mining Safety Management System, as well as the Mineral and Coal Mining Safety Management System (SMKP Minerba). We are committed to achieving zero fatal workplace accidents and minimizing occupational diseases (PAK). During the reporting period, PT Vale implemented a Safe Work Permit (SWP) system, and health protocols for controlling the COVID-19 pandemic throughout all Company activities. OHS compliance is the responsibility of the Head of Mining together with the Chief Operating Officer, and is evaluated by the Board of Directors through regular assessment reports that cover achievement of key performance indicators. The evaluation results for 2020 showed that the Company succeeded in achieving zero fatal work accidents and 9,571,366 safe working hours.





Pada periode pelaporan, PT Vale meluncurkan *Safe Work Permit* (SWP) atau Izin Kerja Aman, sebagai standar yang diterapkan secara global di seluruh unit Vale. SWP merupakan izin kerja yang wajib diperoleh pelaksana proyek dan kegiatan pemeliharaan sebelum melakukan pekerjaan. Tujuan SWP untuk memastikan semua risiko teridentifikasi berikut kontrol keselamatan yang harus disiapkan.

Penerapan SWP sesuai dengan *New Golden Rules* Nomor 9 (Analisis Risiko). [403-1][403-8]

Pada periode sebelumnya PT Vale telah memberlakukan *New Golden Rules* untuk meningkatkan perlindungan seluruh karyawan maupun pekerja kontraktor/pemasok dari cedera dan fatalitas. *New Golden Rules* berisi 10 keutamaan yang harus dipatuhi oleh karyawan maupun pekerja kontraktor/pemasok. [403-1][403-8]

In the reporting period, PT Vale launched a Safe Work Permit (SWP) as a standard to be globally applied in all Vale units. SWPs are work permits that must be obtained for project and maintenance activities before carrying out the work. The purpose of an SWP is to ensure that all risks have been identified, and that safety controls are in place and comply with the New Golden Rules Number 9 (Risk Analysis). [403-1][403-8]

In the previous period, PT Vale implemented New Golden Rules to improve the protection of all employees and contractors/suppliers from injury and fatalities. The New Golden Rules contain 10 priorities that must be followed by employees and contractors/suppliers. [403-1][403-8]





Perseroan juga menerapkan Sistem Manajemen Keselamatan Pertambangan (SMKP), sesuai Peraturan Menteri No.38 Tahun 2014 tentang Penerapan Sistem Manajemen Keselamatan Pertambangan (SMKP) Mineral dan Batubara. SMKP terdiri atas K3 Pertambangan dan Keselamatan Operasi Pertambangan. Penerapan SMKP bertujuan menjamin keselamatan dan kesehatan seluruh (100%) karyawan dan pekerja kontraktor/pemasok serta operasional tambang. [403-1][403-8]

Sebagai bagian dari Vale Global, pada periode pelaporan PT Vale mengambil bagian kegiatan *Global Accident Prevention Week* 2020. Kegiatan berlangsung di seluruh area dan departemen perusahaan, dengan melibatkan karyawan dan keluarga mereka. Kegiatan menekankan pentingnya penerapan empat pilar pencegahan, yakni *Golden Rules*, *Critical Activities Requirements*, *Safe Work Permit*, dan *Vale Production System*. Melalui kegiatan ini, PT Vale menegaskan komitmen "*Without safety, there is no production*".

The Company also implemented a Mining Safety Management System (SMKP), in compliance with Ministerial Regulation No.38 of 2014 concerning the Application of a Mineral and Coal Mining Safety Management System (SMKP) that covers OHS Mining and Mining Operation Safety. The purpose of SMKP is to ensure the safety and health of all (100%) employees and contractors/suppliers as well as mining operations. [403-1][403-8]

As part of Vale Global, PT Vale took part in the Global Accident Prevention Week 2020 activities. Activities took place across the Company, and involved employees and their families. The purpose was to emphasize the importance of implementing the four pillars of prevention, namely the *Golden Rules*, *Critical Activities Requirements*, *Safe Work Permits*, and the *Vale Production System*. Through this activity, PT Vale affirmed its commitment to "Without safety, there is no production".





Selama periode pelaporan, PT Vale juga melanjutkan penerapan *Hazard Identification and Risk Assessment* (HIRA) yang komprehensif untuk mencegah *multiple fatality* di seluruh operasi Sorowako dengan cara pencegahan (*preventive*) dan mitigasi. Tujuan penerapan HIRA:

- Identifikasi dan analisis risiko keamanan operasional;
- Identifikasi dan penetapan kriteria kinerja serta pengendalian kritis;
- Pemetaan *material unwanted events*, yakni peristiwa yang tidak diinginkan dan risiko yang dapat ditimbulkan terhadap manusia, lingkungan, aset, dan untuk bisnis PT Vale.

Bersama Mengendalikan Pandemi COVID-19

Pada periode pelaporan, PT Vale dihadapkan pandemi COVID-19 yang mengancam kesehatan karyawan dan pekerja kontraktor/pemasok. Pasca penetapan COVID-19 sebagai pandemi pada Maret 2020 oleh Pemerintah Indonesia, Perseroan menyiapkan tata kelola Kesiapsiagaan Pengelolaan Penyakit Kejadian Luar Biasa (*Pandemic Preparedness Plan*). Rencana tersebut mencakup tiga hal:

- Menjaga kesehatan dan keselamatan karyawan, keluarga karyawan, serta masyarakat sekitar;
- Melakukan langkah-langkah antisipatif untuk menghambat laju penyebaran infeksi;
- Memastikan keberlanjutan kegiatan operasi Perusahaan.

PT Vale telah dan terus melakukan tindakan-tindakan pencegahan dan penanganan COVID-19 di area operasional perusahaan secara ketat. Langkah yang dilakukan mengacu pada standar penanganan pandemi Vale Global dan juga Pedoman Pencegahan dan Pengendalian Coronavirus Disease (COVID-19) dari Menteri Kesehatan Republik Indonesia No. HK. 01.07/MENKES/413/2020. Pedoman lain adalah rekomendasi Badan Nasional Penanggulangan Bencana (BNPB) yang tetap merekomendasikan pelaksanaan rapid test untuk penapisan dan studi epidemiologi pencegahan. Selain itu, ada pula pertimbangan berdasarkan analisis risiko kelangsungan kegiatan pertambangan sebagai salah satu kegiatan esensial yang menopang ekonomi masyarakat.

PT Vale also continued to implement comprehensive Hazard Identification and Risk Assessment (HIRA) for all Sorowako's operations for prevention & mitigation. The HIRA objectives include:

- Identification and analysis of operational security risks;
- Identification and determination of performance criteria and critical controls;
- Mapping material unwanted events, especially unwanted events and risks caused by humans, the environment, assets, and PT Vale's business.

Together to Control the COVID-19 Pandemic

During the reporting period, PT Vale was faced with the COVID-19 pandemic which threatened the health of employees and contractors/suppliers. After the Government of Indonesia determined that COVID-19 was a pandemic in March 2020, the Company instigated a Pandemic Preparedness Plan. The plan covers three matters:

- Maintaining the health and safety of employees, employees' families, and the surrounding communities;
- Taking anticipatory steps to contain the spread of infection;
- Ensuring the sustainability of the Company's operations.

PT Vale has and continues to take strict preventive and handling measures for COVID-19 in the Company's operational areas. The steps taken refer to Vale Global pandemic management standards as well as the Minister of Health of the Republic of Indonesia No. HK. 01.07/MENKES/413/2020 Guidelines for the Prevention and Control of Coronavirus Disease (COVID-19), and also the National Disaster Management Agency (BNPB) guidelines that recommend undertaking rapid tests for screening and preventive epidemiological studies. Other considerations include a risk analysis on the mining activities sustainability, as an essential activity that supports the community's economy.

PT Vale melaksanakan beberapa kegiatan untuk pencegahan dan penanganan COVID-19, yakni *screening* dan pengujian; pelacakan; serta pengobatan dan pemulihan. [403-7]

- Kegiatan *screening* dilaksanakan dengan melakukan *rapid test* kepada seluruh karyawan dan kontraktor setiap tiga minggu. Terhadap karyawan dan/atau kontraktor yang menunjukkan reaksi positif pada *rapid test*, akan menjalani pengujian dengan tes reaksi rantai polimer (*PCR test*).
- Pelacakan dilakukan terhadap pihak-pihak yang berinteraksi dengan karyawan dan/atau kontraktor, termasuk keluarganya yang diidentifikasi mengalami gejala COVID-19.
- Tindakan perawatan dan pemulihan dijalankan apabila ada karyawan dan/atau kontraktor yang diidentifikasi mengalami gejala COVID-19. Perseroan menyiapkan RS INCO di Sorowako dan fasilitas 108 ruang isolasi khusus, sebagai fasilitas kesehatan untuk merawat karyawan yang diidentifikasi mengalami gejala COVID-19. [403-3]

Kami memberlakukan protokol kesehatan secara ketat disertai penegakan disiplin. Program penegakan disiplin sesuai Peraturan Bupati Lutim No. 32 Tahun 2020 tentang Penerapan Disiplin dan Penegakan Hukum Protokol Kesehatan, juga Perjanjian Bersama antara Perusahaan dengan Serikat Pekerja/Serikat Buruh tertanggal 18 Agustus 2020 mengenai Perjanjian Bersama untuk Mengatur Tindakan Pemberian Disiplin bagi Seluruh Pekerja yang Melanggar Pencegahan dan Penanganan COVID-19. Tindakan disiplin yang diberikan berupa Surat Peringatan kepada karyawan maupun pekerja kontraktor yang melanggar. Upaya-upaya yang dilakukan bertujuan menjaga kesehatan pekerja sebagai aset yang turut menjamin keberlanjutan perusahaan. [403-4][403-7]

Kami mengaktifkan *Employee Assistance Program* (EAP), yakni *hotline* konsultasi 24 jam melalui nomor khusus yang dapat dimanfaatkan karyawan dan keluarga mereka selama pandemi COVID-19. PT Vale juga menggelar pelatihan Inspektur COVID-19, bekerja sama dengan Fakultas Kesehatan Masyarakat Universitas Indonesia (FKM-UI). Pelatihan diikuti 60 orang dari seluruh departemen. Tujuan pelatihan adalah memberdayakan karyawan dalam pencegahan penyebaran COVID-19. Para Inspektur COVID-19 melakukan pengawasan dan juga diharapkan dapat memberikan pemahaman dan perilaku sesuai

PT Vale activities for the prevention and handling of COVID-19, included screening and testing; tracing; and treatment and recovery. [403-7]

- Screening activities included conducting rapid tests for all employees and contractors every three weeks. Employees and/or contractors who showed a positive reaction to the rapid test underwent further testing with a polymer chain reaction test (PCR test).
- Tracing other parties who had close interaction with employees and/or contractors including their families who have been identified as experiencing symptoms of COVID-19.
- Treatment and recovery measures for employees and/or contractors identified as having symptoms of COVID-19. The Company prepared the INCO Hospital in Sorowako and 108 isolation rooms as a health facility to treat employees identified as having symptoms of COVID-19. [403-3]

We have enforced strict health protocols with strict discipline based on the Lutim Regent Regulation No. 32 of 2020 concerning the Application of Discipline and Enforcement of the Health Protocol Law, as well as the Collective Labor Agreement between the Company and the Trade Union dated August 18, 2020 to Regulate Disciplinary Measures for All Employees Violating the Prevention and Handling of COVID-19. Disciplinary action is given in the form of warning letters to employees and contractors who commit violations. These efforts are aimed at maintaining the health of employees who are the asset that ensures the Company's Continuity. [403-4][403-7]

We also activated an Employee Assistance Program (EAP), a 24-hour consultation hotline through a special number for employees and their families to use during the COVID-19 pandemic. PT Vale also held COVID-19 Inspector training, in collaboration with the Faculty of Public Health, Universitas Indonesia (FKM-UI). The training was attended by 60 people from all departments. The training was aimed at empowering employees to prevent the spread of COVID-19. COVID-19 Inspectors carry out supervision and are also expected to demonstrate an understanding and behaviors based on the





Protokol COVID-19 sehingga dapat membantu pencegahan pandemi di internal perusahaan, keluarga, maupun komunitas mereka. [403-5]

Perseroan memberlakukan ketentuan bekerja dari rumah kepada karyawan dengan penyakit penyerta dan rawan terkena COVID-19, dan juga menerapkan pola bekerja dari rumah bagi sebagian karyawan pada fungsi support untuk mengurangi resiko paparan COVID-19. Perusahaan juga memberikan bantuan paket sehat berupa makanan dan vitamin bagi karyawan yang tetap bekerja di lapangan. Perseroan menyiapkan RS INCO di Sorowako sebagai fasilitas kesehatan untuk merawat karyawan yang diidentifikasi mengalami gejala COVID-19. Kami juga memberikan dukungan kepada Gugus Tugas Percepatan Pengendalian (GTPP) COVID-19 Kabupaten Luwu Timur dan Provinsi Sulawesi Selatan, lihat halaman 103.

Berbagai langkah yang dilakukan menjadikan PT Vale mampu mengendalikan pandemi COVID-19 di wilayah operasi pertambangan, fasilitas produksi, serta kantor pusat. Sampai dengan akhir tahun, ada 1.324 karyawan dan pekerja kontraktor yang dinyatakan positif COVID-19 atau 15,18% dari total pekerja di Perusahaan, namun tidak ada yang meninggal dunia. Keberhasilan PT Vale mengendalikan pandemi COVID-19 menjadikan perusahaan tidak melakukan penghentian kegiatan operasi pertambangan dan produksi.

Untuk memastikan kesehatan karyawan maupun pekerja kontraktor, Perusahaan juga melakukan pemeriksaan kesehatan (*medical check up*) berkala. Pemeriksaan dilakukan di RS INCO. Selama periode pelaporan, PT Vale juga melakukan promosi kesehatan kepada karyawan maupun pekerja kontraktor. [403-3][403-6]



COVID-19 Protocol to help prevent the pandemic spreading within the Company, their families and their communities. [403-5]

The Company also introduced a work from home policy for employees with symptoms and those prone to COVID-19, and also implemented work from home for some employees in support functions to reduce the risk of exposure to COVID-19. The company also provides health packages such as food and vitamins for employees working in the field. The Company also prepared the INCO Hospital in Sorowako as a health facility to treat employees identified as having symptoms of COVID-19. We also provided support to the Task Force for the Acceleration of Control (GTPP) for COVID-19 in East Luwu Regency and South Sulawesi Province, see page 103.

The many steps taken by PT Vale have helped control the COVID-19 pandemic in the mining operational areas, production facilities and head office. As at the end of the year, 1,324 employees and contractors tested positive for COVID-19, or 15.18% of the total workforce in the Company, with no fatalities. PT Vale's success to date in controlling the COVID-19 pandemic has meant the Company has not stopped any of its mining and production operations.

To ensure the health of employees and contractors, the Company also conducted periodic medical check-ups. The examinations were carried out at the INCO Hospital. During the year, PT Vale also promoted health programs for its employees and contractors. [403-3][403-6]



Kegiatan Promosi Kesehatan Tahun 2020
Health Promotion Program Activities in 2020

Nama Program Program Name	Keterangan dan Jumlah Peserta Information and Number of Participants			
	PT Vale PT Vale	Kontraktor Contractors	Lainnya Others	Jumlah Total
Memberikan pendidikan kesehatan; Kesehatan emosional Delivering health education; Emotional Health	228	-	-	228
Pencegahan COVID-19 COVID-19 Prevention	1,686	1,379	1,312	4,377
Pencegahan penggunaan alkohol dan narkoba di tempat kerja (NAPZA) Prevention of alcohol and drugs use at work (NAPZA)	2,946	-	-	2,946
HIV / AIDS dan TB di Tempat Kerja HIV/AIDS and TB at Work	3,300	5,560	60	8,860
Nutrisi di tempat kerja dan Manajemen Keamanan Pangan Nutrition at work and Food Safety Management	677	500	-	1,177
Muskulos Keleta; (LBP, DLL)	3,864	-	-	3,864
Penyakit Tidak Menular Non-Communicable Diseases	3,244	-	-	3,244

Kinerja Pengelolaan K3 Tahun 2020

Setiap tahun PT Vale melakukan audit kepatuhan K3. Pelaksanaan audit mengacu SMKP dan IMS–Environment Health and Safety Management System. Audit SMKP tahun 2020 dilakukan oleh tim internal audit PT Vale. Hasil audit menunjukkan tingkat kepatuhan 83,8%. [403-2]

Penerapan K3 melibatkan partisipasi karyawan dan pekerja kontraktor/pemasok. Penerapan K3 dimulai dengan identifikasi bahaya utama dan dikelola dengan sistem/perangkat yang melekat dalam kegiatan operasional, serta mencakup seluruh karyawan dan pekerja kontraktor/pemasok. Kegiatan-kegiatan tersebut dilakukan melalui Contractor Safety Management System (CSMS), General Induction Program (GIP), Site Specific Induction Program (SSIP), Risk Assessment (RA), Job Safety Analysis (JSA), Safety Talks, Critical Activity Requirements (CAR), Safe Work Permit (SWP) dan observasi lapangan berupa Audits/Inspections. PT Vale memiliki Komite Sentral K3 yang bertanggung jawab dalam kegiatan ini. Secara umum, kinerja pengelolaan K3 memperlihatkan peningkatan pada tahun 2020. Tidak ada peristiwa kecelakaan kerja berakibat fatal (kematian). Adapun selama tahun 2020, tingkat rata-rata terjadinya kecelakaan berakibat cidera sebesar 0,51, sedangkan untuk insiden hampir celaka terjadi sebanyak 70 insiden (56 PT Vale dan 14 Kontraktor). [403-2][403-4][403-8][EM-MM-320a.1]

2020 OHS Management Performance

Every year PT Vale carries out an OH&S compliance audit, with the audit referencing the SMKP and IMS-Environment Health and Safety Management System. The 2020 SMKP audit was carried out by PT Vale's internal audit team, and the results showed a compliance rate of 83.8%. [403-2]

The application of OHS involves the participation of employees and contractors/suppliers. The OHS implementation starts with the identification of the main hazards and then managing them through systems/devices used in the operational activities, , and includes all employees and contractors/supplier. These activities are carried out through Contractor Safety Management System (CSMS), General Induction Program (GIP), Site Specific Induction Program (SSIP), Risk Assessment (RA), Job Safety Analysis (JSA), Safety Talks, Critical Activity Requirements (CAR), Safe Work Permit (SWP), and observations through Audits/Inspections. An OHS Central Committee is responsible for these activities. Overall, the OHS application showed an increase in 2020. There were no fatal accidents (deaths). As for 2020, the average rate of accidents resulting in injuries was 0.51, while for near misses there were 70 incidents (56 PT Vale and 14 Contractors). [403-2][403-4][403-8][EM-MM-320a.1]





Tingkat dan Jumlah Peristiwa Kecelakaan Kerja Tahun 2020

Level and Number of Occupational Accidents in 2020 [403-9]

Tingkat Kecelakaan Kerja Workplace Accident Rate	Area dan Tingkatan Area and Rate					
	Sorowako		Bahodopi		Pomalaa	
	Jumlah Total	Tingkatan Rate	Jumlah Total	Tingkatan Rate	Jumlah Total	Tingkatan Rate
Ringan Medical Aid	5	0.32	0	0	0	0
Sedang dan Berat Lost Time Injury & Disabling Injury	3	0.19	0	0	0	0
Fatal Fatality	0	0	0	0	0	0
Jumlah Total	8	0.51	0	0	0	0

Tingkat dan Jumlah Peristiwa Kecelakaan Kerja Tahun 2019

Level and Number of Occupational Accidents in 2019 [403-9]

Tingkat Kecelakaan Kerja Workplace Accident Rate	Area dan Tingkatan Area and Rate					
	Sorowako		Bahodopi		Pomalaa	
	Jumlah Total	Tingkatan Rate	Jumlah Total	Tingkatan Rate	Jumlah Total	Tingkatan Rate
Ringan Medical Aid	6	0.29	0	0	0	0
Sedang dan Berat Lost Time Injury & Disabling Injury	4	0.25	0	0	0	0
Fatal Fatality	0	0	0	0	0	0
Jumlah Total	10	0.53	0	0	0	0

Tingkat dan Jumlah Peristiwa Kecelakaan Kerja Tahun 2018

Level and Number of Occupational Accidents in 2018 [403-9]

Tingkat Kecelakaan Kerja Workplace Accident Rate	Area dan Tingkatan Area and Rate					
	Sorowako		Bahodopi		Pomalaa	
	Jumlah Total	Tingkatan Rate	Jumlah Total	Tingkatan Rate	Jumlah Total	Tingkatan Rate
Ringan Medical Aid	9	0.45	0	0	0	0
Sedang dan Berat Lost Time Injury & Disabling Injury	1	0.05	0	0	0	0
Fatal Fatality	0	0	0	0	0	0
Jumlah Total	10	0.50	0	0	0	0

Selama periode pelaporan, Perusahaan menyertakan karyawan dan kontraktor pada beberapa pelatihan K3, di antaranya: [403-5][EM-MM-320a.1]

- Workshop K3 Pertambangan
- Hazard Identification and Control Training
- Personal Protective Equipment
- Safe Work Permit (Issuer/Acceptor)
- Working at Heights
- Isolation & Lock Out
- Critical Activity Requirements (CAR)
- Golden Rules

PT Vale memberikan perhatian khusus kepada karyawan dan pekerja kontraktor yang bekerja dengan risiko tinggi terhadap keselamatan kerja maupun kesehatan kerja mereka. Untuk meminimalkan ancaman, Kami melakukan mitigasi sesuai pekerjaan yang dihadapi. Selama periode pelaporan, tidak ada karyawan yang terkena penyakit akibat kerja. Selain itu, PT Vale juga memastikan dapat meminimalkan risiko untuk pekerjaan berisiko tinggi, sehingga tidak ada kematian yang disebabkan dari peristiwa ini. [403-9][403-10]

During the reporting period, the Company included employees in OHS training, such as: [403-5][EM-MM-320a.1]

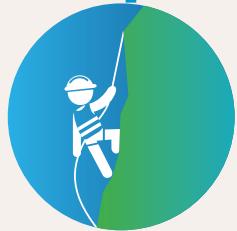
- Workshop on Mining occupational health and safety (OHS)
- Hazard Identification and Control Training
- Personal Protective Equipment
- Safe Work Permit (Issuer/Acceptor)
- Working at Heights
- Isolation & Lock Out
- Critical Activity Requirements (CAR)
- Golden Rules

PT Vale pays special attention to employees and contractors whose work involves high occupational safety and health risk. To minimize any threats, we take steps to mitigate risk based on the work at hand. During the reporting period, PT Vale ensured that no employees or contractors were involved in accidents while carrying out high-risk work, or contracted occupational diseases [403-9][403-10]



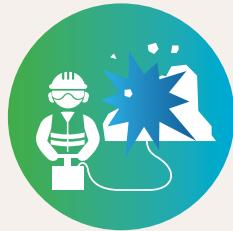


Jenis Pekerjaan Berisiko Tinggi K3 High Risk OHS Areas of Work [403-10]



Bekerja di Ketinggian Working at Heights

- Penerapan standar MHS 01 Implemented MHS 01 standard
- Pelatihan dan audit terkait bahaya bekerja di ketinggian Conducted training and audit on working at heights



Peledakan Blasting

- Penerapan standar MHS-04 Implemented MHS 04 standard
- Sertifikasi juru ledak Certified blasting operator
- Melakukan audit terkait pekerjaan peledakan Performed audit on blasting jobs



Bekerja di Dekat Gas Berbahaya Working Near Dangerous Gases

- Melakukan *hygiene industrial risk assessment* Conducted industrial hygiene risk assessment
- Melakukan *direct monitoring* dan *online monitoring* Conducted direct and online monitoring
- Menyiapkan prosedur kerja aman Prepared safe working procedures
- Penggunaan APD yang sesuai Used appropriate PPE



Bekerja di Kebisingan Working in Noisy Areas

- Melakukan *hygiene industrial risk assessment* Conducted industrial hygiene risk assessment
- Melakukan pemantauan Monitoring



Meninggal/Cedera Serius
Death / Serious Injury



Meninggal/Cedera Serius
Death / Serious Injury



Keracunan gas berbahaya
Hazardous gas poisoning



Kehilangan kepekaan pendengaran
Loss of hearing sensitivity



Bekerja di Area Paparan Panas Working in Heat Exposure Areas

- Melakukan *hygiene industrial risk assessment* Conducted industrial hygiene risk assessment

- Melakukan *monitoring* Monitoring



Heat stress



Peningkatan Kualitas Lingkungan Kerja

Tahun 2020 PT Vale melanjutkan proyek "We have a dream - Housekeeping Improvement", untuk peningkatan kualitas lingkungan kerja. Sesuai rencana proyek akan selesai tahun 2021, dengan perkiraan biaya AS\$5 juta. Pelaksanaan proyek ditujukan pada perbaikan sistem penyaring debu, perbaikan struktural, pengecatan, perbaikan jalan dan sistem drainase. Selain itu, ada kegiatan pembetonan, renovasi bangunan kantor, fasilitas, serta aktivitas perawatan.

Selama tahun 2020, pelaksanaan kegiatan menyangkai seluruh area yang tampak dari kantor utama dan diakses oleh tamu. Realisasi pekerjaan pada tahun 2020 antara lain renovasi Kantin Siloku. Versi baru Kantin Siloku menyediakan makanan sehat-seimbang, demi memenuhi gizi kerja yang diperlukan pekerja untuk melakukan pekerjaan sesuai jenis dan beban kerja. Keberadaan kantin yang representatif diharapkan mengurangi penggunaan kendaraan untuk pulang-pergi site di jam-jam makan sehingga dapat mengurangi emisi kendaraan. Selain itu, beberapa kegiatan lainnya termasuk renovasi gerbang utama *Plant Site*, serta pembenahan kantor dan area di *Process Plant, Mobile Equipment Maintenance, Furnace Control Room, Utilities Control Room*, dan *Mine Dispatcher Control Room*.



Improving the Quality of the Work Environment

In 2020 PT Vale continued its "We have a dream - Housekeeping Improvement" project, to improve the quality of the work environment. As planned, the project will be completed in 2021, with an estimated cost of US\$5 million. The project's aim is to repair the dust filter systems, make structural repairs, painting, repair roads and drainage systems. In addition, other activities include renovations to office buildings and facilities, and other maintenance.

During 2020, the activities implemented targeted all areas visible from the main office and accessible to guests. Realizations of work in 2020 included the renovation of Siloku Canteen. The new version of Kantin Siloku provides healthy balanced meals, to meet the nutrition requirements of employees to do their duties according to the type and workload. The existence of a representative canteen is expected to reduce the use of vehicles to commute to the site at meal times so as to reduce vehicle emissions. In addition, several other activities include renovating the main gate of the Plant Site, as well as improving offices and areas in the Process Plant, Mobile Equipment Maintenance, Furnace Control Room, Utilities Control Room, and Mine Dispatcher Control Room.





Penghargaan dari Kementerian ESDM

Komitmen PT Vale dalam pengelolaan K3 mendapatkan apresiasi dari Direktorat Jenderal Mineral dan Batubara Kementerian ESDM. Perseroan meraih penghargaan Aditama (*Gold*) Pengelolaan Lingkungan Pertambangan untuk Kategori Pemegang Kontrak Karya (KK) dan Izin Usaha Pertambangan Khusus (IUPK), dan penghargaan Utama (*Silver*) Pengelolaan Teknis Pertambangan untuk Kategori Kelompok Pertambangan Komoditas Mineral. Predikat tersebut diraih PT Vale karena memenuhi lima kriteria utama penilaian, yakni baik dalam pengelolaan lingkungan pertambangan, pengelolaan aspek keselamatan kerja, standardisasi teknis, dan manajemen pertambangan, serta aspek konservasi.

Award from the Ministry of Energy and Mineral Resources

PT Vale's commitment to manage OHS received appreciation from the Directorate General of Mineral and Coal, Ministry of Energy and Mineral Resources. The Company won the Aditama (*Gold*) Mining Environmental Management Award for the Category of Contract of Work (KK) and Special Mining Business Permits (IUPK), and the Main (*Silver*) Award for Mining Technical Management for the Category of Mineral Commodity Mining Group. This predicate was achieved by PT Vale because it fulfilled the five main criteria of assessment, in terms of mining environmental management, management of work safety aspects, technical standardization and mining management as well as conservation aspects.





Pemberdayaan Masyarakat

Community Empowerment



Pendekatan Manajemen Management Approach [103-1][103-2][103-3]

PT Vale berkomitmen memberdayakan masyarakat di wilayah operasi dan meningkatkan kesejahteraan mereka. Pada periode pelaporan, komitmen diwujudkan dengan dukungan dana sebesar AS\$4.141.694, serta sinergi dengan pemerintah daerah. Selain melanjutkan program pemberdayaan, pada tahun 2020 Kami berinisiatif memberikan bantuan pengendalian pandemi COVID-19 kepada masyarakat. Pelaksanaan program pemberdayaan masyarakat menjadi tanggung jawab Fungsi Social Development Program pada External Relations & Corporate Affairs Department. Evaluasi dilakukan Direksi melalui mekanisme penilaian laporan berkala dan pencapaian *key performance indicators*. Dari hasil evaluasi, Perseroan melanjutkan Program Pemberdayaan dan Pengembangan Masyarakat (PPM) dan terus mendukung penanganan pandemi COVID-19 di Sulawesi Selatan termasuk Kabupaten Luwu Timur.

PT Vale is committed to empowering communities in the operational areas and helping to improve their welfare. During the reporting period, this commitment was funded with US\$4,141,694 in support, as well as synergies with local governments. In addition to continuing the empowerment program, in 2020 we took the initiative to provide assistance to help manage the COVID-19 pandemic in the communities. The community empowerment program is the responsibility of the Social Development Program Function in the External Relations & Corporate Affairs Department. Evaluations are carried out by the Board of Directors through regular assessment reports that cover achievement of key performance indicators. The evaluation results showed that the Company has continued the Community Empowerment and Development Program (PPM) and provided support for the handling of the COVID-19 pandemic in South Sulawesi including East Luwu Regency.





Kebijakan Policy

- Undang-Undang No. 40 Tahun 2007 tentang Perseroan Terbatas
- Undang-Undang No. 4 Tahun 2009 tentang Pertambangan Mineral dan Batubara
- Peraturan Pemerintah No. 47/2012 Tanggung Jawab Sosial dan Lingkungan Perseroan Terbatas
- Peraturan Menteri ESDM Nomor 25 Tahun 2018 tentang Pengusahaan Pertambangan Mineral dan Batubara
- Peraturan Menteri ESDM No. 26 Tahun 2018 tentang Pelaksanaan Kaidah Pertambangan yang Baik dan Pengawasan Pertambangan Minerba
- Keputusan Menteri ESDM No. 1824K/30/MEM/2018 tentang Pedoman Pelaksanaan Pengembangan dan Pemberdayaan Masyarakat

Selama beroperasi, PT Vale dihadapkan pada tiga isu sosial yang menjadi prioritas.

- Penanganan perambahan lahan;
- Memperbaiki kebutuhan masyarakat To Karunsi'e Dongi; dan
- Penerapan program-program sosial yang memberikan manfaat timbal balik antara Perseroan dengan masyarakat (*shared value*).

Mencegah Perambahan Lahan Menjaga Keberlanjutan

Sampai dengan akhir periode pelaporan, PT Vale dihadapkan pada perambahan dan pembukaan kawasan hutan di wilayah kontrak karya Perseroan. Berdasarkan pemantauan dan pendataan di lapangan, luas lahan yang dirambah oknum warga mencapai 17.713,13 hektar. Lahan yang dirambah tersebar di kawasan hutan dan Area Penggunaan Lain (APL). Kegiatan pembukaan lahan oleh oknum warga dilakukan untuk kepentingan mereka berladang.

- Law No. 40 of 2007 concerning Limited Liability Companies
- Law No. 4 of 2009 concerning Mineral and Coal Mining
- Government Regulation no. 47/2012 Social and Environmental Responsibility of Limited Liability Companies
- Minister of Energy and Mineral Resources Regulation Number 25 of 2018 concerning Mineral and Coal Mining Business
- Minister of Energy and Mineral Resources Regulation Number 25 of 2018 concerning Mineral and Coal Mining Business
- Minister of Energy and Mineral Resources Decree No. 1824K/30/MEM/2018 concerning Guidelines for Implementation of Community Development and Empowerment

In its operation, PT Vale faces three priority social issues.

- Handling land encroachment;
- Supporting the To Karunsi'e Dongi community; and
- Implementation of social programs that provide mutual benefits between the Company and the community (*shared value*).

Preventing Land Encroachment Maintaining Sustainability

During the reporting period, PT Vale encountered encroachment and clearing of forest areas in the Company's contract of work areas. Based on monitoring and data collection in the field, the area of land encroached has reached 17,713.13 hectares. The encroached land is scattered in forest areas and Other Areas of Use (APL). Land clearing has been carried out by local residents for purposes of farming.

Kami terus berupaya melakukan pencegahan perambahan lahan dan mencari solusi terbaik. Selain bertujuan mengamankan aset dan rencana pertambangan, pencegahan diperlukan karena perambahan lahan berdampak negatif terhadap lingkungan. Secara tidak langsung kondisi tersebut mempengaruhi keberlanjutan operasi pertambangan dan usaha PT Vale.

Upaya pencegahan dilakukan secara berhati-hati untuk menghindari konflik dengan warga. Melalui pendekatan intensif, selama periode pelaporan PT Vale telah melakukan pencegahan dan alternatif solusi untuk meminimalkan perambahan lahan, yaitu melakukan pengawasan secara intensif dengan melakukan patroli dan membentuk Tim Gabungan Pengamanan Hutan bersama para pemangku kepentingan, termasuk melaporkan tindakan perambahan hutan kepada pihak Kepolisian.

Dukungan pada Penduduk Asli

[MM6][MM9][EM-MM-210a.3]

Saat ini Pemerintah Kabupaten Luwu Timur sedang melakukan persiapan dalam menyusun rancangan peraturan daerah tentang Pengakuan dan Perlindungan Masyarakat Adat (PPMHA), sesuai dengan Peraturan Menteri Dalam Negeri No. 52 tahun 2014 tentang Pedoman PPM. Selanjutnya dilakukan identifikasi, verifikasi dan validasi lebih lanjut untuk memastikan ada informasi sejarah Masyarakat Hukum Adat (MHA), wilayah adat, hukum adat, harta kekayaan dan atau benda-benda adat, dan kelembagaan sebelum ditetapkan melalui SK Bupati untuk PPMHA.

Sebagai salah bentuk dukungan PT Vale terhadap Human Rights, PT Vale menghormati dan berkomitmen menjalankan kesepakatan yang pernah ada dengan masyarakat lokal, sesuai dengan arah dan kebijakan program PPM. Pada tahun 2020, PT Vale melakukan kerja sama program pengembangan pertanian dan perikanan sehat ramah lingkungan dan berkelanjutan, serta pengembangan upaya Kesehatan bersumberdaya masyarakat berbasis herbal dengan komunitas yang menamakan dirinya sebagai masyarakat To Karunsi'e, To Padoe, To Tambee, To Taipa, To Weula, dan beberapa komunitas masyarakat lainnya. Selama masa pandemi COVID-19, beberapa komunitas masyarakat juga dilibatkan dalam memproduksi 20.000 lembar masker kain untuk didonasikan kepada masyarakat dalam upaya pencegahan dan penyebaran COVID-19.

We continue to look for ways to prevent land encroachment and find the best solution. Apart from securing mining assets and plans, prevention is needed as land encroachment can have a negative impact on the environment, and this indirectly affects the sustainability of PT Vale's mining and business operations.

Prevention efforts are carried out carefully to avoid conflicts with residents. Through an intensive approach, during the reporting period, PT Vale took alternative preventive measures to minimize land encroachment. PT Vale carries out intensive supervision by conducting patrols and forming a Joint Forest Protection Team with stakeholders, including reporting forest encroachment actions to the Police.

Indigenous Peoples Support

[MM6][MM9][EM-MM-210a.3]

Currently the East Luwu Regency Government is preparing a regional regulation draft on the Recognition and Protection of Indigenous Peoples (PPMHA), in accordance with the Minister of Home Affairs Regulation No. 52 of 2014 concerning the PPM Guidelines. Identification, verification and further validation was carried out to ensure there was historical information on the Customary Law Community (MHA), customary territories, customary law, customary assets and/or objects, and institutions before being stipulated by a Regent Decree for PPMHA.

As a sign of PT Vale's respect for Human Rights, PT Vale is committed to carry out existing agreements with local communities, in accordance with the PPM program direction and policies. In 2020, PT Vale collaborated with local communities on sustainable and environmentally friendly healthy agriculture and fisheries development programs, and also assisted the development of herbal-based community health efforts with the To Karunsi'e, To Padoe, To Tambee, To Taipa, To Weula, and several other communities. During the COVID 19 pandemic, several communities partnered with PT Vale to produce and donate 20,000 masks to help prevent the spread of COVID 19.





PT Vale juga membangun infrastruktur pendukung kegiatan sosial dan ekonomi di Pemukiman Dongi yang bertempat di Desa Ledu-Ledu, Kecamatan Wasuponda sebagai bentuk tindak lanjut dari komitmen yang tertuang dalam Berita Acara Kesepakatan Nomor BA/P2P/IV/2008 tentang Pelaksanaan Pembangunan, di antaranya:

- Renovasi rumah penduduk sebanyak 7 unit
- Perbaikan jalan di Pemukiman Dongi
- Pembangunan fasilitas kandang sapi dan pengolahan pupuk
- Pembangunan gudang perlengkapan dan pupuk kompos
- Penyediaan sarana dan prasarana budidaya ikan air tawar
- Penyediaan sarana dan prasarana budidaya sayuran organik
- Penyediaan sarana dan prasarana budidaya magot dan pakan ikan organik
- Pendampingan kegiatan P3SLRB dan UKMB herbal

Program pendampingan untuk masyarakat di pemukiman dongi dan pengembangan infrastruktur akan dilanjutkan di tahun 2021 sesuai dengan kesepakatan yang ada. Selain itu, selama tahun 2020 tidak ada perselisihan lahan yang terjadi.

Bentuk dukungan lainnya, PT Vale juga memulai renovasi sebagian rumah yang ditinggali masyarakat Dongi serta melengkapi permukiman dengan fasilitas jalan, drainase, dan membantu ketersediaan air bersih.

Selain itu, selama bertahun-tahun, terdapat sengketa pada kawasan Bumi Perkemahan (Bumper) yang berada di area Kontrak Karya PT Vale. Masyarakat Dongi Karunsi'e meyakini bahwa mereka memiliki klaim sejarah atas tanah tersebut dan menetap di daerah yang telah ditetapkan oleh Pemerintah untuk tujuan penambangan. Kawasan Bumper bukan kawasan permukiman yang ditentukan, sehingga kawasan ini kekurangan infrastruktur dasar seperti listrik dan menimbulkan risiko keselamatan bagi masyarakat setempat karena kedekatannya dengan kegiatan pertambangan.

Pada Februari 2020, PT Vale bertemu dengan pemerintah dan tokoh masyarakat untuk mencari resolusi, yang kemudian mengarah pada solusi konsensus yang didorong oleh niat baik dan dialog terbuka antara PT Vale, masyarakat Dongi Karunsi'e, dan Pemerintah Daerah Luwu Timur. Pada April 2020, Pemerintah mengklasifikasikan kembali kawasan Bumper sebagai kawasan pemukiman sementara bagi masyarakat Dongi Karunsi'e. Lebih lanjut, PT Vale

PT Vale has also built infrastructure to support social and economic activities in the Dongi Settlement in Ledu-Ledu Village, Wasuponda District as a follow-up to the commitments contained in the Minutes Agreement No. BA/P2P/IV/2008 concerning Development Implementation, including:

- Renovating 7 houses for residents
- Repairing roads in the Dongi Settlement
- Constructing cowsheds and fertilizer processing facilities
- Constructing compost and equipment warehouses
- Providing the facilities and infrastructure for freshwater fish farming
- Providing the facilities and infrastructure for organic vegetable cultivation
- Providing the facilities and infrastructure for maggot cultivation and organic fish feed
- Providing assistance for herbal P3SLRB and UKMB activities

Assistance programs for communities in Dongi, and the infrastructure development will continue into 2021 based on the existing agreement. During 2020 there were no land disputes.

PT Vale has also started renovating homes inhabited by the Dongi community, as well as equipping the settlements with road and drainage facilities, and helping with the availability of clean water.

Furthermore, for many years, an area of land within PT Vale's Contract of Work, known as the Bumper area, has been in dispute. The Dongi Karunsi'e people, believing they had historical claims to the land, settled in the area which the Government had designated for mining purposes. Since it was not a designated settlement area, it lacked basic infrastructure such as electricity and posed safety risks for people living there given its proximity to mining activities.

In February 2020, PT Vale convened government and community leaders to find a resolution, which ultimately led to a consensus solution driven by good-faith and open dialogue between PT Vale, the Dongi Karunsi'e people, and the East Luwu Regency Government. In April 2020, the Government reclassified the Bumper area as a temporary settlement area for the Dongi Karunsi'e people. This was followed by PT Vale coordinating the installation

mengkoordinasikan pemasangan listrik ke kawasan Bumper dan masyarakat Dongie Karunsi'e menyetujui untuk membatasi total area demi menjamin keselamatan dan kesejahteraan masyarakat setempat. PT Vale tetap berkomitmen terhadap keselamatan dan kesejahteraan masyarakat serta bekerja sama untuk meningkatkan peluang dan hasil pembangunan.

Menciptakan Nilai Melalui Program Sosial

Selama periode pelaporan, PT Vale melanjutkan Program Pengembangan dan Pemberdayaan Masyarakat (PPM). Pelaksanaan kegiatan PPM mengacu pada Rencana Induk Pengembangan dan Pemberdayaan Masyarakat (RI PPM) PT Vale 2018-2030. Tujuan pelaksanaan PPM untuk memberikan kontribusi pada peningkatan kesejahteraan masyarakat dengan mendorong partisipasi aktif masyarakat lokal dalam mendorong kemandirian dan terciptanya pembangunan masyarakat lokal yang berkelanjutan. Hasil asesmen menunjukkan kebutuhan dari komunitas, pemetaan kelompok pemangku kepentingan yang rentan, kesempatan kerja sama dengan pemerintah daerah, dan penyediaan saluran keluhan. Oleh karena itu, program PPM terus dikembangkan untuk menjawab semua kebutuhan masyarakat. [413-1]

PPM juga bagian dari pengelolaan dampak negatif kegiatan operasi yang dijalankan Perseroan. Investasi sosial lain yang dijalankan adalah kemitraan dan kontribusi strategis. Bentuk investasi sosial disesuaikan hasil pemetaan pemangku kepentingan serta rencana pembangunan Pemkab Luwu Timur. Pemetaan pemangku kepentingan mencakup wilayah Sorowako, Bahodopi, dan Pomalaa untuk mengetahui dampak aktual dan potensi dampak yang ditimbulkan dari kegiatan Perusahaan. [413-2]

Pengelolaan Dampak Negatif

Negative Impact Management [413-1] [413-2]

BLOK SOROWAKO SOROWAKO BLOCK	
Jumlah Desa Number of Villages	<ul style="list-style-type: none">Kecamatan Nuha terdiri dari 5 Desa/Kelurahan Nuha sub-district consists of 5 Villages/wardsKecamatan Wasuponda terdiri dari 6 Desa/kelurahan Wasuponda sub-district consists of 6 Villages/wardsKecamatan Towuti terdiri dari 18 Desa/kelurahan Towuti sub-district consists of 18 Villages/wardsKecamatan Malili terdiri dari 9 Desa/kelurahan Malili sub-district consists of 9 Villages/Wards

of electricity to the Bumper area and the Dongie Karunsi'e people agreeing to restrict the total area to ensure the safety and well-being of people living there. PT Vale remains committed to the safety and well-being of communities and working together to improve development opportunities and outcome.

Sharing Value Through Social Programs

During the reporting period, PT Vale continued the Community Development and Empowerment Program (PPM) by referring to the PT Vale Community Development and Empowerment Master Plan (RI PPM) 2018-2030. The purpose of implementing PPM is to help improve community welfare by actively encouraging local communities to participate independently and to create sustainable local community development. The assessment results showed that the needs of the community, mapping of vulnerable stakeholder groups, opportunities for collaboration with local governments, and providing channels for complaints have been successful. Therefore, the PPM program will continue to be developed to address the community's needs. [413-1]

PPM also helps manage any negative impact from the Company's operational activities. Social investments carried out include partnerships and strategic contributions. The nature of any investment is adjusted based on results of stakeholder mapping and development plans by the East Luwu Regency Government. Stakeholder mapping covering the Sorowako, Bahodopi, and Pomalaa areas was carried out to ascertain the actual and potential impacts of the Company's activities. [413-2]





Percentase dari Desa di Wilayah Operasi Percentage of Villages in Operational Area	100% Catatan: Terdapat 5 desa di Kecamatan Malili tidak termasuk dalam wilayah ring 1 Note: There are 5 villages in Malili District not included in the ring 1 area
Tipe (Investasi Sosial/ Pemberdayaan) Type (Social Investment/ Empowerment)	Pengembangan dan Pemberdayaan Masyarakat - Pengembangan Kawasan Perdesaan Mandiri (PKPM), Kemitraan Strategis, Kontribusi Strategis Community Development and Empowerment – Self Reliance Rural Area Development (PKPM), Strategic Partnership, Strategic Contribution
BLOK SOROWAKO SOROWAKO BLOCK	
Dampak Negatif Aktual dan Potensial Actual and Potential Negative Impacts	<ul style="list-style-type: none"> Kenaikan level air danau Towuti dan kenaikan level air sungai di Kecamatan Malili An increase in the water level of Lake Towuti and an increase in the level of river water in Malili District Kegiatan penambangan di area Pinang Hill (area CoW mengakibatkan sejumlah petani tidak melanjutkan kegiatannya) Mining activities in the Pinang Hill area (the CoW area resulted in a number of farmers discontinuing their activities)
Upaya Penanggulangan Dampak Impact Mitigation Efforts	<ul style="list-style-type: none"> Dilakukan asesmen dan ganti rugi Carrying out assessments and providing compensation Melakukan pemantauan berkala kenaikan level air yang dimanfaatkan untuk pembangkit listrik Performing regular monitoring on increases in the water level used for electricity generation
BLOK POMALAA POMALAA BLOCK	
Jumlah Desa Number of Villages	<ul style="list-style-type: none"> Kecamatan Pomalaa, terdiri dari 12 Desa/kelurahan Pomalaa sub-district consists of 12 Villages/wards Kecamatan Baula terdiri dari 10 Desa/kelurahan Baula sub-district consists of 10 Villages/wards
Percentase dari Desa di Wilayah Operasi Percentage of Villages in Operational Area	100%
Tipe (Investasi Sosial/ Pemberdayaan) Type (Social Investment/ Empowerment)	Investasi Sosial - Penyediaan infrastruktur untuk mendukung program pengembangan dan pemberdayaan masyarakat (PPM) Social Investment – Provision of infrastructure to support community development and empowerment (PPM) program
Dampak Negatif Aktual dan Potensial Actual and Potential Negative Impacts	Aktivitas kendaraan operasional mengakibatkan lokasi jalan berdebu Operational vehicle activity results in dusty road locations
Upaya Penanggulangan Dampak Impact Mitigation Efforts	Melakukan perbaikan dan penataan akses jalan Improving and re-routing road access
BLOK BAHODOPI BAHODOPI BLOCK	
Jumlah Desa Number of Villages	<ul style="list-style-type: none"> Kecamatan Bungku Timur terdiri dari 6 Desa/kelurahan East Bungku sub-district consists of 6 Villages/wards Kecamatan Bahodopi terdiri dari 7 Desa/kelurahan Bahodopi sub-district consists of 7 Villages/wards
Percentase dari Desa di Wilayah Operasi Percentage of Villages in Operational Area	100% Catatan: Terdapat 4 desa di Kecamatan Bungku Timur dan 5 Desa di Kecamatan Bahodopi tidak termasuk dalam wilayah ring 1 Note: There are 4 villages in Bungku Timur District and 5 Villages in Bahodopi District which are not included in the ring 1 area
Tipe (Investasi Sosial/ Pemberdayaan) Type (Social Investment/ Empowerment)	Investasi Sosial - Penyediaan infrastruktur untuk mendukung program pengembangan dan pemberdayaan masyarakat (PPM) Social Investment – Provision of infrastructure to support community development and empowerment (PPM) program
Dampak Negatif Aktual dan Potensial Actual and Potential Negative Impacts	Adanya dampak kegiatan eksplorasi terhadap sumber air bersih The impact of exploration activities on clean water sources
Upaya Penanggulangan Dampak Impact Mitigation Efforts	Membangun sumur bor untuk sumber air bersih di lokasi terdampak (Desa Onepute Jaya, Desa Bahomotefe dan Desa Bahomoahi) Drilling wells for clean water sources in affected locations (Onepute Jaya Village, Bahomotefe Village and Bahomoahi Village)

Salah satu prioritas pelaksanaan investasi sosial adalah pemanfaatan batang-batang pohon dari pemindahan vegetasi dalam kegiatan operasi pertambangan. Batang-batang kayu tersebut memiliki nilai ekonomis untuk diolah lebih lanjut. Pada periode pelaporan, Perseroan melakukan pematangan rencana kerjasama dengan badan usaha milik daerah (BUMD) atau kelompok masyarakat lokal sebagai pihak yang akan mengelola batang-batang pohon tersebut. Diharapkan pada tahun 2021 sudah ada kesepakatan sehingga pada periode berikutnya dapat dilaksanakan pemanfaatan batang-batang pohon untuk meningkatkan kesejahteraan masyarakat setempat.

PT Vale selama tiga tahun melakukan donasi sampah domestik kepada bank sampah yang dikelola masyarakat di Kecamatan Nuha. Selain penerapan dari Program 3R (*reduce, reuse & recycle*), donasi sampah merupakan pelaksanaan program investasi sosial. Perseroan mendapatkan manfaat dari pengelolaan sampah domestik di area koncesi sehingga tidak mencemari lingkungan, sementara bank sampah yang dikelola masyarakat dapat dikelola dan diolah sehingga menjadi sumber pendapatan. Selama periode pelaporan, donasi sampah domestik diberikan kepada Bank Sampah Unit Morina Desa Sorowako, yang terdiri dari 676,4 kilogram botol plastik, 1.339,36 kilogram karet, 556,4 kilogram almarhum (kaleng) dan 665 kilogram botol kaca. Donasi sampah juga dilakukan kepada Bank Sampah Delima, Kelurahan Magani dengan berat 581,17 kilogram berbentuk karung.

One of the social investment priorities involved the use of tree trunks removed during the mining operations. The logs have economic value, and the Company has finalized a cooperation plan with regional-owned enterprises (BUMD) and local community groups to manage the tree trunks. It is hoped that in 2021 there will be agreements in place so that in the future tree trunks can be used to improve the local communities' welfare.

Over the past three years, PT Vale has taken domestic waste to a community-run waste bank in Nuha District. This is part of the 3R Program (reduce, reuse & recycle), and the social investment program. The Company benefits from domestic waste management in the concession areas as it helps prevent environmental pollution, while community-managed waste banks that are managed and processed can become a source of income. During the reporting period, domestic waste taken to the Morina Village Waste Bank Unit of Sorowako, comprised 676.4 kilograms of plastic bottles, 1,339.36 kilograms of rubber, 556.4 kilograms of aluminum (cans), and 665 kilograms of glass bottles. Waste weighing 581.17 kilograms was also taken to the Delima Garbage Waste Bank, in Magani Village in sacks.





Pada periode pelaporan, Perseroan melanjutkan realisasi Rencana Induk Pengembangan dan Pemberdayaan Masyarakat (RI-PPM) Periode 2018 – 2022, mencakup empat kecamatan di Kabupaten Luwu Timur, yakni Kecamatan Nuha, Malili, Wasuponda, dan Towuti. Salah satu pelaksanaan kegiatan PPM adalah Pengembangan Kawasan Perdesaan Mandiri (PKPM) yang merupakan program kemitraan antara masyarakat, pemerintah daerah, dan PT Vale. Tujuan PPM adalah meningkatkan kapasitas produksi, daya saing, nilai tambah, dan kemandirian ekonomi masyarakat di wilayah terdampak operasi.

Kolaborasi Membangun Kawasan Perdesaan

Pelaksanaan PKPM mendapat dukungan dari Kementerian Desa, Pemerintah Provinsi Sulawesi Selatan, dan Pemerintah Kabupaten Luwu Timur. Pengembangan Kawasan Perdesaan Mandiri (PKPM) bertujuan mendorong pengembangan Kawasan perdesaan yang mandiri dan berdaya saing. Pada tahun 2020 PT Vale memberikan dukungan pembiayaan program di Blok Sorowako sebesar AS\$1.311.594 melalui kegiatan pendampingan, pengembangan kapasitas pelaku Badan Kerjasama Antar Desa (BKAD), dan Badan Usaha Milik Desa Bersama (Bumdesma). Realisasi program ini antara lain pembentukan Kawasan Pertanian Terpadu Kecamatan Towuti, sebagai contoh kolaborasi antara Pemerintah Pusat, Pemerintah Provinsi Sulawesi Selatan, dan Pemerintah Kabupaten Luwu Timur. Rincian realisasi dana pelaksanaan kegiatan dapat dilihat pada Lampiran 1 laporan ini.

During the reporting period, the Company continued its Master Plan for Community Development and Empowerment (RI-PPM) for the 2018-2022 period, in four sub-districts in East Luwu Regency, namely Nuha, Malili, Wasuponda, and Towuti Districts. One of the PPM activities involved the Development of Independent Rural Areas (PKPM), a partnership program between the communities, local government, and PT Vale. The goal of PPM is to increase production capacity and competitiveness, add value, and provide economic independence for communities in areas affected by operations.

Collaboration to Develop Rural Areas

The Development of Independent Rural Areas (PKPM) has received the support of the Ministry of Villages, the Provincial Government of South Sulawesi, and the East Luwu Regency Government. PKPM is aimed at encouraging the development of independent and competitive rural areas. In 2020, PT Vale program financing support in the Sorowako Block amounted to US\$1,311,594 through mentoring and capacity building for the Inter-Village Cooperation Agency (BKAD), and Joint Village-Owned Enterprises (Bumdesma). This program helped in the establishment of the Towuti District Integrated Agricultural Area, as an example of collaboration between the Central Government, the Provincial Government of South Sulawesi, and the East Luwu Regency Government. Details of the funds used for these activities can be found in Appendix 1 of this report.

Pembangunan Infrastruktur yang Menunjang PPM

Pelaksanaan kegiatan PPM juga mencakup infrastruktur penunjang. Pada tahun 2020, realisasi biaya infrastruktur penunjang PPM mencapai AS\$1.644.250, atau 134% dari total realisasi anggaran tahun 2020. Realisasi infrastruktur penunjang di antaranya:

- Perbaikan tangki air berkapasitas 500.000 liter.
- *Upgrade* level bendungan Asuli.
- Perbaikan instalasi pipa air yang rusak untuk layanan air bersih bagi masyarakat di 8 desa di Kecamatan Towuti.
- Membangun Pujasera Sorowako dan menata beberapa fasilitas umum, serta penyediaan listrik untuk penerangan di Kecamatan Nuha.
- Pengadaan alat kesehatan.

Realisasi biaya program PPM di blok Pomalaa, Bahodopi, dan Sua-sua masih berfokus penyelesaian program tahun 2019, program PPM tahun 2020 akan dilanjutkan ke tahun 2021 sebesar AS\$505.554.

Infrastructure Development to Support PPM

The PPM activities also includes support for infrastructure. In 2020, the PPM infrastructure support costs reached US\$1,644,250, or 134% of the total 2020 budget. The supporting infrastructure included:

- Repairing water tanks with a capacity of 500,000 liters.
- Upgrading the Asuli dam level.
- Repairing damaged water pipes used for clean water for the communities in 8 villages in Towuti District.
- Building a Sorowako Food Court and organizing several public facilities, as well as providing electricity for lighting in Nuha District.
- Procuring medical devices.

The PPM program costs amounting to US\$505,554 in the Pomalaa, Bahodopi and Sua-sua blocks focused on completing the 2019 program, the 2020 PPM program will continue into 2021.





Kegiatan Kepedulian Lain

Selama tahun 2020, PT Vale menyelenggarakan berbagai kegiatan kepedulian bagi masyarakat sekitar. Kami memberikan bantuan bagi penanganan pandemi COVID-19. Bantuan diberikan kepada Pemerintah Kabupaten Luwu Timur, melalui Gugus Tugas Percepatan Penanganan (GTPP) COVID-19 Kabupaten. Kami juga memberikan bantuan kepada Provinsi Sulawesi Selatan melalui GTPP COVID-19 Provinsi dan RSUP Dr Wahidin Sudirohusodo, Makassar. Penyerahan bantuan dilakukan secara bertahap selama periode pelaporan. Secara keseluruhan, nilai bantuan yang diberikan mencapai AS\$2,6 juta. Rincian bantuan COVID-19 yang disalurkan dapat dilihat pada Lampiran 2 laporan ini.

PT Vale juga melakukan pengembangan usaha mikro, kecil, dan menengah (UMKM) di masa pandemi COVID-19 meliputi empat wilayah pemberdayaan PT Vale di Blok Sorowako, dengan investasi biaya PPM sebesar AS\$17.244. UMKM binaan adalah UMKM yang mengalami penurunan omset sangat drastis dan di antaranya tidak berproduksi sementara. Capaian di tahun 2020 di antaranya 24 UMKM telah mengubah kemasan produk agar lebih menarik minat konsumen, serta memberikan fasilitas akses pasar bagi produk-produk UMKM binaan, melalui Galeri UMKM di Kecamatan Nuha yang dibangun PT Vale sebagai salah satu sarana agar masyarakat lokal maupun pendatang dapat mengenal dan menikmati hasil produksi olahan komoditi lokal Kabupaten Luwu Timur.

Lebih lanjut, PT Vale melakukan kegiatan pelayanan dan promosi kesehatan berupa kegiatan usaha kesehatan bersumberdaya masyarakat (UKBM) berbasis herbal. Realisasi biaya tahun 2020 sebesar AS\$625.649 untuk kegiatan UKBM berbasis herbal. Kegiatan UKBM berbasis herbal selama masa pandemi dilakukan dengan cara pelayanan konsultasi yang dilakukan secara online seputar resep ramuan, produksi kelompok, kegiatan anggota/kelompok, maupun teknis budidaya tanaman sayuran dan obat. Beberapa pelatihan juga dilakukan juga secara online. Para penggiat herbal mananam berbagai jenis tanaman obat seperti sereh, jahe, temulawak dan kunyit dan panen sebagai bahan baku produk olahan, termasuk membuat jamu penambah daya tahan tubuh untuk pencegahan penyebaran COVID-19, seperti di posko Desa Nikkel dan Nuha.

Other Caring Activities

During 2020, PT Vale organized a number of activities to care for the surrounding communities. We provided assistance for handling the COVID-19 pandemic. Assistance was provided to the East Luwu Regency Government, through the Regency COVID-19 Handling Acceleration Task Force (GTPP). We also provided assistance to South Sulawesi Province through the Provincial GTPP COVID-19 and to Dr Wahidin Sudirohusodo Hospital, Makassar. The assistance was delivered in stages during the reporting period. Overall, the assistance provided reached US\$2.6 million. Details of the COVID-19 assistance can be found in Appendix 2 of this report.

PT Vale also helped micro, small and medium Enterprises (MSMEs) during the COVID-19 pandemic in four PT Vale empowerment areas in the Sorowako Block, with investments of PPM amounting to US\$17,244. The MSMEs assisted were those that had experienced a drastic decline in product turnover and those that had stopped production temporarily. In 2020, 24 MSMEs were helped to change their product packaging to attract more consumer interest, others were provided with market access facilities for their MSME products, through the UMKM Gallery in Nuha District, which was built by PT Vale so that local people and newcomers could get to know and enjoy the processed local commodities in East Luwu Regency.

PT Vale also carried out health service and promotion activities through herbal-based community-based health businesses (UKBM). The costs for these herbal-based UKBM activities in 2020 amounted to US\$625,649. During the pandemic period, the herbal-based UKBM activities were carried out through online consultations regarding herb recipes, group production, member/group activities, as well as technical cultivation of vegetable and medicinal plants. Other training was also conducted online. The herbalists plant various types of medicinal plants including lemongrass, ginger, temulawak and turmeric and harvest them as raw materials for processing, including making immune-boosting herbs to prevent the spread of COVID-19, especially in the Nikkel and Nuha village posts.

Selama periode pelaporan, Perseroan menjalankan berbagai kegiatan membantu korban bencana alam di Indonesia. PT Vale menyalurkan bantuan untuk korban bencana banjir bandang di Masamba, Kabupaten Luwu Utara, Sulawesi Selatan. Bantuan berupa pengoperasian alat berat, pengiriman Tim Search and Rescue (SAR), serta sembako. Seluruh unit alat berat dioperasikan pada periode 14-30 Juli 2020. Tim juga didukung 6 generator set, 4 chainsaw, 2 pompa lumpur, 1 waterjet, serta 7 tandon air dan selang untuk pemulihan wilayah banjir, pembangunan infrastruktur, serta membantu mobilitas Tim SAR.

During the reporting period, the Company also provided assistance to victims of natural disasters in Indonesia. PT Vale distributed aid to victims of flash floods in Masamba, North Luwu Regency, South Sulawesi. Assistance took the form of heavy equipment operations, a Search and Rescue Team (SAR), and groceries, with the heavy equipment units operating from July 14-30, 2020. The team support also included 6 generator sets, 4 chainsaws, 2 mud pumps, 1 water jet, and 7 water reservoirs and hoses for flood recovery, infrastructure development, and assisting the mobility of the SAR Team.





Respon Keluhan dan Penanganan Pengaduan [103-2][413-1][MM7]

PT Vale memberikan akses kepada masyarakat untuk menyampaikan keluhan maupun pelaporan. Setiap keluhan maupun pelaporan akan ditindaklanjuti Departemen External Relations and Corporate Affairs, dengan berbagai metode pendekatan dan melibatkan fungsi-fungsi terkait. Selama tahun 2020, beberapa keluhan/pengaduan dari masyarakat disampaikan langsung pada saat rapat koordinasi dengan kecamatan yang dilakukan satu bulan sekali.

Selama tahun 2020, tidak terdapat kegiatan penambangan ilegal atau pertambangan rakyat di sekitar wilayah operasi PT Vale, dan tidak ada ada pemogokan yang terjadi selama lebih dari satu minggu. Perseroan tidak melakukan relokasi masyarakat selama periode pelaporan sebagai pengaruh dari kegiatan pertambangan. Sesuai dengan peraturan Pemerintah, dua dari tiga blok PT Vale telah memiliki Rencana Pasca Tambang. Selain itu, satu dari tiga blok yang menjadi wilayah operasi PT Vale terdapat masyarakat lokal yang merupakan penduduk asli yang diakui dan tercatat dalam perjanjian.

[MM4][MM5][MM8][MM9][EM-MM-210b.2]

Keluhan/Pengaduan Masyarakat Tahun 2020 dan Tindak Lanjutnya

Public Complaints/Grievances in 2020 and Company Response

Jenis Keluhan/Pengaduan Complaint / Grievances	Lokasi Location	Tindak Lanjut Company Response
Terkait Langsung dengan Kegiatan Operasional Related Directly with Operational Activities		
Air Bersih Clean Water	Towuti	Pembangunan penampungan air, membuat jaringan pipa baru, perbaikan pipa, penanganan sementara menggunakan <i>water truck</i> , pengurusan izin, dan regular PM Check. Constructing water reservoirs and new pipelines, repairing pipes, temporary handling using water trucks, arranging permits, and regular PM checks.
Air Bersih Clean Water	Nuha	Melakukan penertiban penggunaan air, inspeksi pemanfaatan pipa, pengurusan izin pemanfaatan air, dan regular PM Check. Conducting water use control, inspecting pipe utilization, arranging water utilization permits, and regular PM Check.
Air Bersih Clean Water	Wasuponda	Pengurusan IPPKH. IPPKH management.
TPA Asuli Asuli TPA	Towuti	Memproses penyerahan lahan TPA ke Pemerintah Daerah Luwu Timur. Processing the handover of the TPA land to the East Luwu Regional Government.
TPST Morina Mornia TPST	Nuha, Sorowako	Kerja sama pengelolaan dengan Desa Sorowako dan Pembersihan lahan TPST Morina. Management cooperation with Sorowako Village and land clearing at TPST Morina.
Kesempatan Bekerja Job Opportunities	Nuha, Towuti, Wasuponda, Malili	Studi tiru pembuatan BLK ke Bantaeng & Kementrian Tenaga Kerja dalam rangka peningkatan kapasitas tenaga kerja Luwu Timur. A mock study of making BLK to Bantaeng & the Ministry of Manpower in order to increase the capacity of the workforce of East Luwu.

Grievance Handling and Management Approach [103-2][413-1][MM7]

PT Vale provides access to the public to submit and report complaints. All reported complaints are followed up by the External Relations and Corporate Affairs Department with the related functions using various approaches. During 2020, there were several complaints/grievances from the public, including those delivered directly during the monthly coordination meetings with the sub-districts.

During 2020, there were no illegal mining or community mining activities in the vicinity of PT Vale's operational areas, and no strikes occurred lasting more than one week. The Company did not relocate any communities during the reporting period as a result of its mining activities. In accordance with Government regulations, two of the three PT Vale blocks have a Post-Mining Plan. In addition, one of the three blocks in PT Vale's operational areas is the home to local communities who are indigenous, and they have been recognized and recorded in the agreement. [MM4][MM5][MM8][MM9][EM-MM-210b.2]

Jenis Keluhan/Pengaduan Complaint / Grievances	Lokasi Location	Tindak Lanjut Company Response
Keberadaan Warga Dongi di Bumper The Existence of Dongi Residents in Bumper	Nuha	Bupati mengeluarkan Surat Keputusan pemukiman terbatas sementara. The Regent issued a temporary limited settlement decree.
Penerangan Jalan Street Lighting	Nuha, Wasuponda	Memperbaiki dan memelihara lampu jalan yang ada. Repaired and maintained existing street lights.
Pengembangan Infrastruktur dan Ekonomi Masyarakat Dongi Infrastructure Development and Economy of the Dongi Community	Ledu-ledu, Wasuponda	Melakukan renovasi tujuh rumah, perbaikan jalan, dan pelaksanaan program peningkatan ekonomi pertanian, peternakan, dan perikanan, sehat, ramah lingkungan, dan berkelanjutan (P3SRLB). Renovated seven houses, repaired roads, and implemented programs to increase the economy from agriculture, livestock and fisheries, healthy, environmentally friendly, and sustainable practices(P3SRLB).
Listrik Electricity	Loeha, Tokalimbo	Kerja sama pemanfaatan area KK termasuk IPPKH. Cooperation in the use of the KK area including IPPKH.
Lahan Masyarakat yang Bersinggungan dengan Kegiatan Operasional PT Vale Community Land adjacent to PT Vale's Operational Activities	Towuti & Nuha	Melakukan komunikasi secara regular kepada pemilik lahan dan melanjutkan proses dari kesepakatan yang telah ada. Communicate regularly with land owners and continue the process of existing agreements.
Komitmen Penggantian Tanah Land Replacement Commitment	Nuha	Proses pemenuhan kesepakatan tengah berjalan. The agreement fulfillment process is ongoing.
Pemberdayaan Masyarakat Lokal Local Community Empowerment	Nuha, Towuti, Wasuponda	Pengembangan dan pemberdayaan masyarakat berfokus pada dukungan peningkatan kesejahteraan untuk masyarakat miskin dan kelompok rentan, terkait dengan dukungan program masyarakat lokal melalui skema program PKPM dan kemitraan strategis. Community development and empowerment focuses on supporting welfare improvements for the poor and vulnerable groups, and are related to local community program support through the PKPM program scheme and strategic partnerships.
Perubahan Birokrasi yang Panjang dalam Organisasi PT Vale yang Mengakibatkan Panjangnya Proses Pembayaran Lengthy Bureaucratic Changes in the PT Vale Organization Resulting in Long Payment Processes	Nuha, Towuti, wasuponda, Malili	<ul style="list-style-type: none"> Penyesuaian mekanisme pembayaran <i>special payment</i> dari Vale Global mengakibatkan keterlambatan pada proses bisnis di area Sorowako yang berpotensi berdampak pada gangguan operasional Perusahaan. Adjustments to the special payment mechanism from Vale Global resulted in delays to business processes in the Sorowako area that could potentially impact the Company's operations. Melakukan penyampaikan secara langsung kepada masyarakat terdampak, meningkatkan kordinasi secara internal dengan area terkait seperti Compliance, Governance, Finance, dan SCM. Delivering information directly to affected communities, improving internal coordination with related areas such as Compliance, Governance, Finance, and SCM.
Penyelesaian Komitmen Lama Perusahaan d/h PT Inco Completion of Old Company Commitments with PT Inco	Nuha, Towuti	Melaksanakan secara konsisten komitmen lama, melakukan kordinasi dan penyelesaian secara bertahap, serta terus melakukan evaluasi terhadap pelaksanaan komitmen. Consistently implement old commitments, carry out coordination and completion in stages, and continue to evaluate the implementation of commitments.
Hibah Hasil Penjualan Listrik & Scrap Electricity & Scrap Sales Grants	Pemda Luwu Timur Local Government of East Luwu	Menghadiri undangan <i>hearing</i> dari DPRD Luwu Timur dan pemerintah Luwu Timur, memberikan pembaharuan secara berkala, dan berkordinasi secara intens dengan internal departemen terkait. Attended the invited hearings from the East Luwu DPRD and the East Luwu government, provided regular updates and coordinated intensely with the relevant internal departments.



PT Vale berkomitmen terus meningkatkan pelaksanaan kegiatan PPM. Salah satu bentuk evaluasi program adalah survei Indeks Kepuasan Masyarakat (IKM). Penilaian Pelaksanaan survei pada tahun 2020 meliputi wilayah pemberdayaan masyarakat di 38 Desa dan tersebar di 4 Kecamatan dengan hasil pengukuran nilai IKM PPM PT Vale 2020 sebesar 74,34 dengan kategori B atau Baik (62,51-81,25), pada implementasi program dengan nilai IKM 72,82, untuk pelaksana program dengan nilai IKM 75,90 dan dampak program terhadap masyarakat dengan nilai IKM 74,25, juga semuanya masuk dalam kategori B atau Baik.

PT Vale is committed to continuously improving the PPM activities implementation. Community Satisfaction Index (IKM) surveys were undertaken to evaluate the results. The PT Vale 2020 IKM PPM survey covered community empowerment areas in 38 villages across 4 districts and scored 74.34 in category B or Good (62.51-81.25), while the IKM program application scored 72.82, the IKM program implementation scored 75.90, and the IKM program impact on the community scored 74.25, all within the category B or Good.

Indeks Kepuasan Masyarakat (IKM) Program PPM

PPM Program Public Satisfaction (PSI)

Uraian Description	2020	2019	2018
IKM Program PPM PPM Program IKM	74.34	71.34	N/A
Penerapan Program Application of the Program	72.82	70.04	N/A
Pelaksanaan Program Program Implementation	75.90	72.43	N/A
Dampak Program Program Impact	74.25	71.83	N/A

*Penilaian IKM baru mulai di tahun 2019

* IKM assessments started in 2019







Tata Kelola untuk Pertambangan Berkelanjutan

Governance for Sustainable Mining



PT Vale Indonesia Tbk menyadari pentingnya arti membangun dan menjaga kepercayaan para pemangku kepentingan. Perseroan memiliki komitmen tinggi dalam penerapan tata kelola perusahaan yang baik (GCG). Tujuannya untuk mendorong kegiatan usaha secara sehat dan beretika, dengan terus meningkatkan kinerja, transparansi, akuntabilitas, serta tanggung jawab di mata para pemangku kepentingan.

Tata Kelola Keberlanjutan

Sesuai putusan RUPS Luar Biasa pada 7 September 2020, telah terjadi perubahan komposisi Direksi dan Dewan Komisaris. Lihat Laporan Tahunan 2020 PT Vale Indonesia Tbk untuk informasi pelaksanaan RUPS Luar Biasa, komposisi Direksi, Dewan Komisaris, Komite-Komite di Bawah Dewan Komisaris dan Fungsi-fungsi di bawah Direksi, serta proses nominasi dan seleksi anggota Direksi maupun Dewan Komisaris. [102-22] [102-24]

Direksi juga menjabat sebagai Chief Officer, sehingga memudahkan perencanaan dan pelaksanaan pengelolaan berkelanjutan Perseroan. Sampai dengan akhir periode pelaporan, PT Vale belum menunjuk secara definitif anggota Direksi yang bertanggung jawab atas tata kelola keberlanjutan. Sesuai Undang-Undang No.40 Tahun 2007 tentang Perusahaan Terbatas, struktur GCG

PT Vale Indonesia Tbk understands the importance of building and maintaining the trust of stakeholders. Therefore, the Company is highly committed to implementation of good corporate governance (GCG). The aim is to encourage healthy and ethical business activities, through continuous improvements to performance, transparency, accountability and responsibility for its stakeholders.

Sustainability Governance

Based on the Extraordinary GMS decision on September 7, 2020, there was a change in the composition of the Board of Directors and the Board of Commissioners. See the 2020 Annual Report of PT Vale Indonesia Tbk for information related to the Extraordinary GMS, the composition of the Board of Directors, Board of Commissioners, Committees below the Board of Commissioners, and functions below the Board of Directors, as well as the nomination and selection process for members of the Board of Directors and Board of Commissioners. [102-22][102-24]

The Board of Directors also serves as the Chief Officer, thereby facilitating the Company's sustainable management planning and implementation. Up to the end of the reporting period, PT Vale has not definitively appointed a member of the Board of Directors responsible for sustainability governance. In accordance with the 2007 Law No.40 concerning Limited Liability Companies, the GCG structure related to the



terkait tanggung jawab dan pengambilan keputusan dalam hal pengelolaan keberlanjutan Perseroan dilaksanakan secara kolektif kolegial oleh Direksi, dengan pengawasan Dewan Komisaris. Direksi dan Dewan Komisaris menyampaikan laporan kinerja kepada Pemegang Saham melalui Rapat Umum Pemegang Saham (RUPS) sebagai organ tertinggi tata kelola perusahaan. [102-18][102-23] [POJK51-5.a]

Kedudukan masing-masing anggota Direksi termasuk Presiden Direktur adalah setara. Di bawah koordinasi Presiden Direktur, Direksi menerapkan tata kelola keberlanjutan Perseroan meliputi aspek ekonomi, lingkungan dan sosial. Setiap anggota Direksi dapat mendelegasikan tanggung jawabnya dalam penerapan tata kelola keberlanjutan kepada pejabat perusahaan di bawahnya, sesuai dengan bidang tugas yang menjadi tanggung jawabnya. [102-19][102-20]

Dalam penerapan tata kelola keberlanjutan termasuk mengelola isu-isu lingkungan, sosial dan tata kelola (LST), Direksi melakukan konsultasi dengan para pemangku melalui beberapa metode pendekatan, baik langsung maupun tidak langsung. Konsultasi langsung dilaksanakan oleh anggota Direksi, sementara konsultasi tidak langsung dilakukan melalui pendeklasian kewenangan kepada pejabat perusahaan yang ditunjuk sesuai topik-topik yang menjadi materi konsultasi. [102-21]



Pendelegasian Kewenangan dan Tata Kelola Keberlanjutan [102-19]

Direksi mendelegasikan pelaksanaan konsultasi dan komunikasi dengan pemangku kepentingan terkait pemenuhan tanggung jawab sosial dan lingkungan (TJSL) kepada Departemen External Relations and Corporate Affairs, yang memiliki empat divisi pendukung.

Company's sustainability management responsibilities and decision making is carried out collectively by the Board of Directors, with the supervision of the Board of Commissioners. The Board of Directors and the Board of Commissioners submit performance reports to Shareholders through the General Meeting of Shareholders (GMS) as the highest corporate governance body. [102-18][102-23] [POJK51-5.a]

Each member of the Board of Directors including the President Director has an equal position. Under the coordination of the President Director, the Board of Directors implements the Company's sustainability governance covering the economic, environmental and social aspects. Each member of the Board of Directors can delegate their responsibilities for implementing sustainability governance to Company officials below them, in accordance with the area of responsibility they hold. [102-19][102-20]

For implementing sustainable governance, including managing environmental, social and governance (ESG) issues, the Board of Directors consults with the stakeholders using several direct and indirect methods of approach. Direct consultations are carried out by members of the Board of Directors, while indirect consultations are carried out by delegating authority to Company officials based on the topics being discussed. [102-21]

Pengungkapan informasi tentang pembagian tugas dan tanggung jawab anggota Direksi dan manajemen risiko disampaikan dalam Laporan Tahunan 2020 PT Vale Indonesia Tbk.

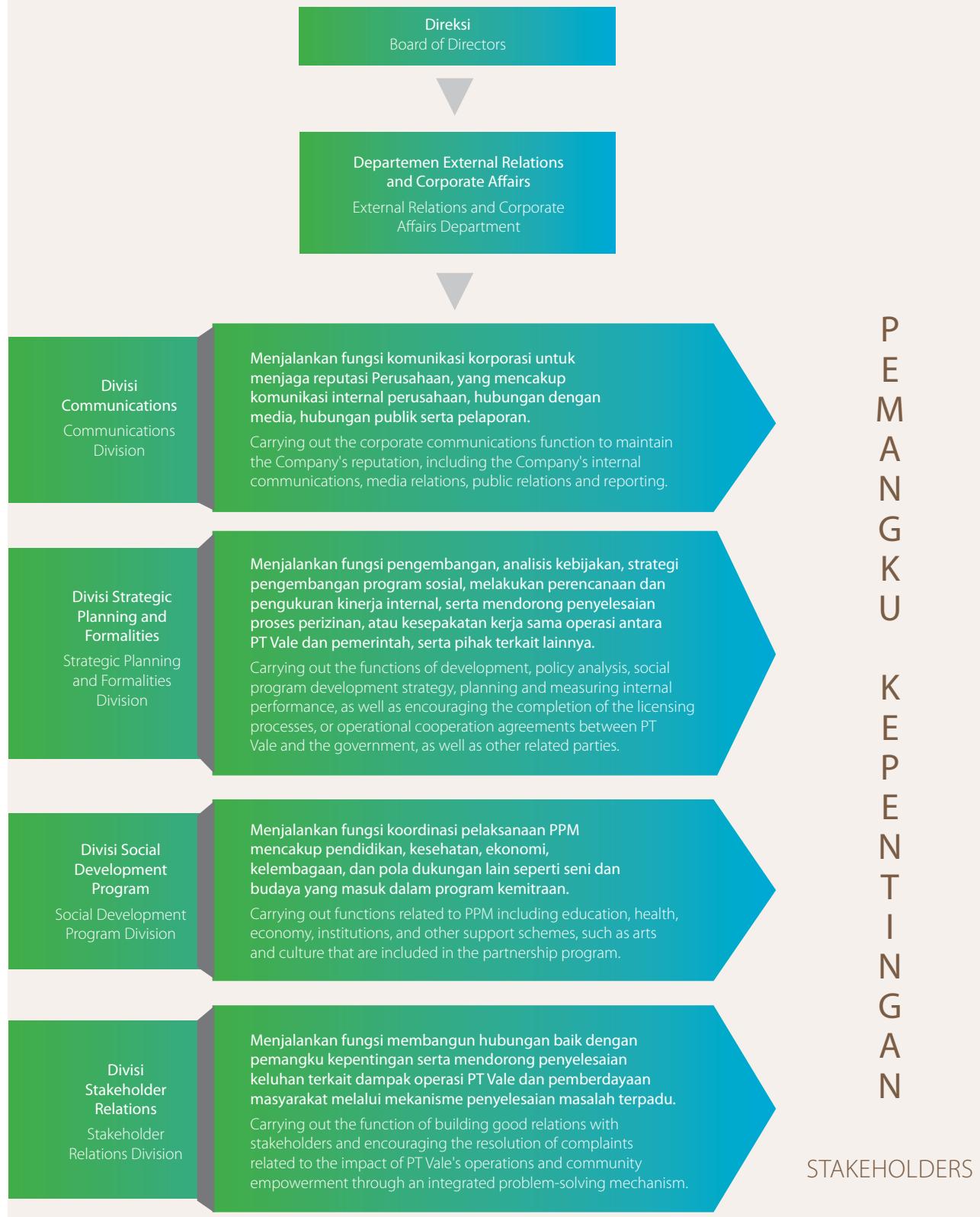
Disclosure of information on the distribution of duties and responsibilities between members of the Board of Directors, and risk management can be found in the 2020 Annual Report of PT Vale Indonesia Tbk.

Delegation of Authority and Sustainable Governance [102-19]

The Board of Directors has delegated the duties of consultation and communication with stakeholders related to fulfilling social and environmental responsibility (SER) to the External Relations and Corporate Affairs Department, which has four support divisions.

Pendeklegasian Konsultasi dan Komunikasi dengan Pemangku Kepentingan

Delegation of Consultation and Communication with Stakeholders



Dalam meningkatkan kinerja keberlanjutan, Direksi secara aktif melakukan pengembangan kompetensi terkait penerapan aspek keberlanjutan. Pengembangan kompetensi dilaksanakan melalui *global leadership workshop* yang diadakan setiap tahun. [POJK51-5.b]

For sustainability performance improvements, the Board of Directors is active in competency development related to the implementation of sustainability aspects in the business. Competency development is carried out through a global leadership workshop held annually. [POJK51-5.b]

Kepatuhan pada Kode Etik

Perseroan didukung berbagai kebijakan internal yang menjadi pedoman dalam menerapkan prinsip-prinsip GCG. Kebijakan internal tersebut, antara lain Kode Etik dan Perilaku (*Code of Ethics and Conduct*), Norma Pengadaan (*Procurement Norm*), Piagam Dewan Komisaris, Piagam Direksi, Piagam Komite Tata Kelola, Piagam Komite Audit, Piagam Internal Audit, Piagam Sekretaris Perusahaan, dan berbagai kebijakan serta prosedur lainnya.

Kode Etik dan Perilaku mengandung aturan-aturan umum mengenai perilaku etis yang harus dipatuhi anggota Direksi, Dewan Komisaris, Komite Audit, manajemen, karyawan, karyawan magang, kontraktor, dan seluruh pihak yang bekerja untuk PT Vale. Kode Etik dan Perilaku mencakup berbagai bidang antara lain kesehatan dan keselamatan, hak asasi manusia, lingkungan kerja yang inklusif dan beragam, kejujuran dalam bersaing, konflik kepentingan, memakai sumber daya perusahaan dengan benar, bekerja dengan pemasok, bertukar hadiah, melindungi informasi, mewakili Vale, dan memerangi korupsi.

Kami memastikan tidak ada hubungan semenda di antara anggota Dewan Komisaris dan Direksi, maupun antar-mereka, yang dapat menimbulkan benturan kepentingan. PT Vale juga memastikan tidak ada Pemegang Saham yang memiliki hubungan langsung maupun tidak langsung dengan pemasok maupun rantai pasok perusahaan. Selama periode pelaporan, tidak ada hal-hal yang mengindikasikan terjadinya benturan kepentingan dalam setiap keputusan yang dibuat PT Vale. [102-25]

Pada tahun 2020 PT Vale melakukan beberapa pelatihan yang dilakukan secara daring sebagai berikut:

- Pelatihan Benturan Kepentingan yang mencapai tingkat partisipasi 1.143 (100%) dari target peserta 1.143 karyawan yang memiliki akses intranet.

Compliance with the Code of Ethics

The Company has instituted a number of internal policies that serve as guidelines for implementing GCG principles. These internal policies include the Code of Ethics and Conduct, Procurement Norms, and specific Charters for the Board of Commissioners, Board of Directors, Governance Committee, Audit Committee, Internal Audit, and Corporate Secretary, and other policies and procedures.

The Code of Ethics and Conduct contains general guidelines regarding ethical behavior that the Board of Directors, Board of Commissioners, Audit Committee, management, employees, apprentices, contractors and all parties who work for PT Vale must comply with. The Code of Ethics and Conduct covers a wide range of areas including health and safety, human rights, an inclusive and diverse work environment, honesty in competition, conflicts of interest, using Company resources properly, working with suppliers, exchanging gifts, protecting information, representing Vale, and fighting corruption.

We ensure that there are no conflicting relationships between members of the Board of Commissioners with the Board of Directors, as well as internally, which could create a conflict of interest. PT Vale also ensures that no shareholders have a direct or indirect relationship with the Company's suppliers or supply chains. During the reporting period, there were no indications of a conflict of interest in any decisions made by PT Vale. [102-25]

In 2020, PT Vale conducted online training that included:

- Conflict of Interest training for 1,143 employees, 100% of the targeted participants with intranet access.

- Pelatihan Etik dan Perilaku yang mencapai tingkat partisipasi 1.116 karyawan (97,6%) dari target peserta 1.143 karyawan yang memiliki akses intranet.
 - Pelatihan Aksi untuk Integritas yang mencapai tingkat 94,6% dari target 3.090 karyawan.
 - Sosialisasi dan Pelatihan Etik dan Perilaku yang diselenggarakan oleh bagian pengembangan karyawan melalui kelas daring dengan jumlah partisipasi mencapai 189 karyawan untuk tujuh sesi kelas yang diadakan.
- Ethics and Behavior Training for 1,116 employees, 97.6% of the targeted 1,143 employees with intranet access.
 - Action for Integrity Training for 94.6% of the targeted of 3,090 employees.
 - Ethics and Behavioral Socialization and Training organized by the employee development section through online classes for 189 employees in seven class sessions held.

Dukungan pada Antikorupsi [\[EM-MM-510a.1\]](#)

Kami memiliki toleransi nol untuk korupsi dan penyalahgunaan kekuasaan untuk keuntungan pribadi. Perseroan menyediakan berbagai saluran yang bisa dimanfaatkan para pemangku kepentingan untuk menyampaikan informasi maupun laporan setiap pelanggaran atau indikasi korupsi. Selama tahun 2020, PT Vale tidak melakukan *assessment* ulang untuk mengidentifikasi kegiatan operasional yang berisiko terjadinya korupsi. Adapun PT Vale menyelenggarakan sosialisasi maupun pelatihan antikorupsi kepada karyawan, dan juga kepada masyarakat maupun pemangku kepentingan lain. [\[205-1\]](#)[\[205-2\]](#)

- Program pelatihan antikorupsi global dilakukan secara daring pada awal tahun 2020 yang mencapai tingkat partisipasi 97,7% dari target 1.068 karyawan
- Program pelatihan anti-korupsi untuk beberapa karyawan yang diprioritaskan antara lain bagian Pengadaan, bagian Hubungan Luar perusahaan dan perijinan, bagian Sumber Daya Manusia, serta karyawan lain yang dalam pekerjaannya akan berinteraksi dengan institusi atau pejabat pemerintah. Tingkat partisipasi pelatihan mencapai 82% dari target 256 peserta.

Di sisi lain, PT Vale menerapkan *e-procurement* sebagai salah satu pendekatan untuk meminimalkan risiko korupsi. Penerapan *e-procurement* juga menjadi bagian dari transparansi manajemen kontrak. Terdapat klausul dalam setiap kontrak untuk tidak melakukan *bribery* dan korupsi.

Support for Anti-Corruption [\[EM-MM-510a.1\]](#)

We have zero tolerance for corruption and abuse of power for personal gain. The Company provides various channels that stakeholders can use to send information or reports on any violations or indications of corruption. During 2020, PT Vale did not conduct re-assessments to identify operational activities at risk of corruption. PT Vale did conduct anti-corruption socialization and training to employees, as well as to the public and other stakeholders. [\[205-1\]](#)[\[205-2\]](#)

- A global online anti-corruption training program in early 2020 for 97.7% of the targeted 1,068 employees.
- Priority anti-corruption training programs for employees, including the Procurement section, External Relations and licensing section, Human Resources section, and other employees whose jobs involve interacting with government institutions or officials. The training participation rate reached 82% of the targeted 256 participants.

To help, PT Vale has implemented e-procurement as an approach to minimize the risk of corruption. The e-procurement application forms part of the contract management transparency. All contracts contain a clause to not commit bribery and/or corruption.



Perseroan menyediakan Panduan Anti-Korupsi Global Vale di fasilitas intranet. Salah satu bab dalam panduan tersebut khusus membahas mengenai hadiah dan keramahtamahan serta menyajikan semua aturan yang berlaku. Sesuai ketentuan tersebut menetapkan bahwa hadiah dan keramahtamahan lebih dari Rp250.000, yang ditawarkan kepada pihak ketiga harus dicatat dan disetujui sebelumnya di Portal Integritas Perusahaan (*Corporate Integrity Portal*). Selama periode pelaporan ada 266 permohonan hadiah dan keramahtamahan dan perseroan menyetujui 254 permohonan. [205-3]

The Company has made available the Vale Global Anti-Corruption Guidelines on its intranet. One of the chapters specifically deals with gifts and hospitality and provides the applicable rules. In accordance with these provisions, it stipulates that gifts and hospitality of more than Rp250,000, which are offered to third parties, must be recorded and approved in advance on the Corporate Integrity Portal. During the reporting period there were 266 requests for gifts and hospitality and the company approved 254 requests. [205-3]

Whistleblowing System

PT Vale memiliki saluran pelaporan pelanggaran (*whistleblower*), yakni Vale Whistleblower Channel (VWC) yang terhubung langsung ke Bagian Kode Etik dan Perilaku Vale S.A. Kami menyediakan beberapa kanal untuk menyampaikan pelaporan pelanggaran. Hal-hal yang dapat dilaporkan antara lain penggelapan, korupsi, pencurian, pelanggaran kebijakan PT Vale, konflik kepentingan, kecurangan laporan keuangan, penyogokan, pelecehan, diskriminasi, pelanggaran ketentuan lingkungan hidup, kesehatan, dan keselamatan kerja.

Whistleblowing System

PT Vale has a whistleblower reporting channel through the Vale Whistleblower Channel (VWC) that is directly connected to the Ethics and Conduct Office at Vale S.A. We provide several channels for submitting reported violations. Matters that need to be reported include embezzlement, corruption, theft, violations of PT Vale's policies, conflicts of interest, fraudulent financial statements, bribes, harassment, discrimination, violations of environmental provisions, and violations of occupational health and safety standards.

Sarana dan Penanganan Pengaduan Melalui VWC Means and Handling of Complaints Through the VWC

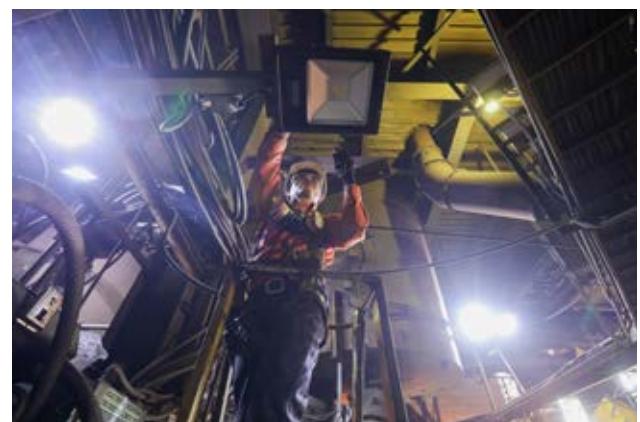
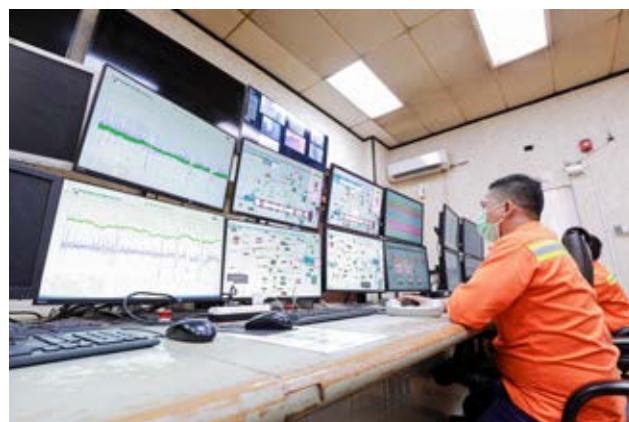
Uraian Descriotion	Sarana dan Penanganan Pengaduan Melalui VWC Means and Handling of Complaints Through the VWC
Telepon Telephone	0 800 100 2233 Merupakan telepon bebas pulsa. Pelapor akan dilayani tanpa harus menyampaikan identitasnya. A toll free telephone. Reporters will be served without having to convey their identity.
Faksimili Fax	+62 21 2993 8456 Formulir pelaporan dapat diunduh di http://valewhistleblowerchannel.tipoffsinfo . Informasi harus disampaikan terperinci dalam bentuk lembaran. A reporting form can be downloaded at http://valewhistleblowerchannel.tipoffsinfo . Detailed information must be submitted in sheet form.
Email	vwc@tipoffs.info Alamat email pelapor tidak akan diberikan ke Bagian Kode Etik dan Perilaku di Brazil tanpa sepengetahuan pelapor. The whistleblower's email address will not be provided to the Code of Ethics and Conduct Office in Brazil without the informant's knowledge.
Website	//valewhistleblowerchannel.tipoffs.info
Surat Letter	Vale Whistleblower Channel, PO Box 3035, JKP 10030 Formulir pelaporan dapat diunduh di http://valewhistleblowerchannel.tipoffs.info dan disampaikan dengan informasi lengkap. A reporting form can be downloaded at http://valewhistleblowerchannel.tipoffs.info and must be submitted with complete information.
SMS	+62 812 80400622 Para pemangku kepentingan Perseroan dapat menggunakan saluran pelaporan tersebut di atas setiap saat menemukan perilaku yang tercela atau pelanggaran terhadap Kode Etik dan Perilaku. The Company's stakeholders can use the reporting channels mentioned above at any time report any improper behavior or violations of the Code of Ethics and Conduct.

VWC dikelola independen dan profesional oleh suatu perusahaan penyedia jasa *whistleblowing* di Indonesia. Setiap laporan akan direspon serta diinvestigasi dengan prosedur yang melindungi hak dari pelapor dan yang dilaporkan, sesuai hukum yang berlaku. PT Vale menjamin kerahasiaan, kemandirian (tanpa intervensi), ketidakberpihakan dan kekebalan dalam penanganan, penyelidikan dan penyimpanan informasi yang diterima melalui VWC. Hak-hak perorangan dalam membuat laporan dan kerahasiaan nama-namanya juga akan dilindungi. Tidak akan ada bentuk-bentuk pembalasan atau retaliai terhadap orang-orang yang menggunakan VWC dengan itikad baik.

Sampai dengan akhir tahun 2020 terdapat 74 laporan ke VWC. Jumlah laporan bertambah dibanding tahun 2019 sebanyak 50 laporan, dikarenakan pada tahun 2020 semua laporan yang diterima oleh Departemen Pengamanan Perusahaan diperhitungkan sebagai pelaporan VWC. Selanjutnya, seluruh laporan akan ditentukan untuk ditindaklanjuti dengan suatu investigasi atau tidak. Investigasi dapat dilakukan internal maupun oleh pihak eksternal yang ditunjuk. Laporan terbanyak yang telah diinvestigasi berdasarkan kategori adalah terkait Keamanan Perusahaan (29%), Hubungan dengan pihak ketiga (14%), Hubungan Interpersonal (12%), dan Kecurangan (11%). Adapun bentuk sanksi yang diberikan terkait pelanggaran yang dilakukan karyawan secara keseluruhan mencakup sanksi teringan berupa pengarahan tertulis kepada 28 karyawan dan sanksi terberat adalah pemutusan hubungan kerja yang diberikan pada 2 orang karyawan.

VWC is managed by an independent and professional whistleblowing service provider in Indonesia. Each report will be responded to and investigated with procedures that protect the whistleblower's rights and the rights of the reported parties, in accordance with applicable laws. PT Vale guarantees the confidentiality and independence of any investigation. This includes no intervention by the Company, and impartiality and immunity in the handling, investigation and storage of information received through the VWC. The rights of individuals to report and the anonymity of their names will also be protected. There will be no reprisals or retaliation against those who use the VWC in good faith.

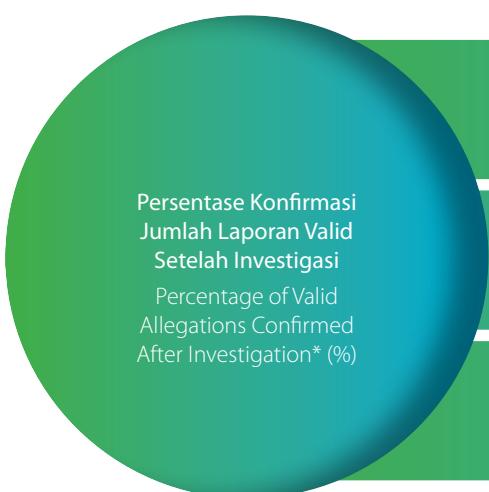
By the end of 2020 there were 74 reports submitted to the VWC. The number of reports increased by 50 compared to reports in 2019, as all reports received by the Department of Corporate Security in 2020 were considered VWC reports. All reports are assessed to determine whether a follow-up investigation is required or not. Investigations can be carried out internally or by appointed external parties. Most reports that have been investigated by category are related to Company Security (29%), Relationships with third parties (14%), Interpersonal Relations (12%), and Fraud (11%). The sanctions given regarding violations committed by employees as a whole includes the lightest sanctions in the form of written directions to 28 employees and the heaviest sanctions are termination of employment given to 2 employees.





Penanganan Pelaporan Pelanggaran Melalui VWC
Violation Reporting Handled Through VWC

Uraian Description	2020	2019	2018
Jumlah Laporan Diterima Number of Allegations Received	74	24	30
Percentase Laporan Valid Percentage of Valid Allegations	99%	92%	90%
Jumlah Laporan Diterima per Ribuan Karyawan Number of allegations received per thousand employees	10.1	4.0	5.6



Percentase Konfirmasi Jumlah Laporan Valid Setelah Investigasi
Percentage of Valid Allegations Confirmed After Investigation* (%)

	2020	2019	2018
Tidak terbukti Not confirmed	19	54	48
Tidak dapat dipastikan Inconclusive	16	13	24
Terbukti Confirmed	65	33	33

Keterangan: * Berdasarkan tahun selesai dilakukannya investigasi.
Notes: * Per year of investigation completed



Efektivitas Proses Pengelolaan Risiko

PT Vale memiliki sistem pengelolaan risiko strategis yakni Framework for Integrated Risk Management (FIRM), sesuai standar ISO 31000. FIRM digunakan untuk risiko-risiko bersifat strategis dan mengelolanya dengan mensyaratkan maximum foreseeable loss (MFL), yaitu skenario terburuk yang mungkin terjadi dalam hal terjadi suatu *Risk Event*. FIRM juga mensyaratkan adanya pemahaman faktor penyebab *Risk Event*, kemungkinan terjadinya faktor penyebab tersebut, serta tingkat keseriusan dampak yang ditimbulkan jika *Risk Event* terjadi. Berbagai metode standar telah dikembangkan untuk menilai dan memilih kategori-kategori faktor penyebab, kemungkinan kejadian serta keseriusan dampak *Risk Event*. Dengan demikian, risiko dapat dievaluasi dan dibandingkan di seluruh organisasi Perseroan.

Penerapan manajemen risiko melibatkan Direksi dan Dewan Komisaris. Pengelolaan risiko oleh Direksi didukung fungsi-fungsi pelaksana di manajemen, yakni Manajemen Risiko, Manajemen Lini, dan Internal Audit. Pengelolaan risiko diawasi Dewan Komisaris dibantu Komite Mitigasi Risiko. Secara berkala, Direksi dan Dewan Komisaris melakukan pertemuan/rapat yang di antaranya membahas pengelolaan risiko. Dengan demikian, pengelolaan risiko dipastikan berjalan efektif dan mampu menghindarkan Perseroan dari berbagai kerugian. Selama periode pelaporan, pengelolaan telah berjalan dengan baik sehingga PT Vale mampu mempertahankan kinerja operasional, produksi, dan usaha. [102-30]

Effectiveness of Risk Management Process

PT Vale has a strategic risk management system, called the Framework for Integrated Risk Management (FIRM), which is based on ISO 31000 standards. FIRM is used to determine strategic risks and how to manage them by looking at the maximum foreseeable loss (MFL), which is the worst possible scenario if the Risk Event occurs. FIRM also requires an understanding of the factors causing the Risk Event, the likelihood of these causes, as well as the seriousness of the impact if the Risk Event occurs. Various standard methods have been developed to assess and categorize the causative factors, the likelihood of occurrence and the severity of the Risk Event impact, ensuring risks can be evaluated and compared across the Company's organization.

The implementation of risk management involves the Board of Directors and the Board of Commissioners. Risk management by the Board of Directors is supported by executive management functions, including Risk Management, Line Management and Internal Audit. Risk management is supervised by the Board of Commissioners assisted by the Risk Mitigation Committee. Periodically, the Board of Directors and the Board of Commissioners hold meetings to discuss risk management. These efforts ensure risk management is effective and able to protect the Company from losses. During the reporting period, the management functioned properly so that PT Vale maintained its operational, production, and business performance. [102-30]



Evaluasi Topik Keberlanjutan

Selama periode pelaporan, PT Vale melakukan beberapa kegiatan yang melibatkan pemangku kepentingan untuk dapat menyampaikan hal-hal penting kepada Direksi. [102-33][102-34]

- Untuk lingkup internal, Perseroan memiliki gembawalk, yakni aktivitas pengumpulan fakta langsung untuk perbaikan. Pada periode pelaporan, gembawalk dilakukan virtual dengan menyambangi fungsi SCM, Finance, External Relation & Corporate Affairs, Security Services hingga Medical Services. Dialog dipimpin Deputy CEO PT Vale, Febriany Eddy. Sejumlah hal disampaikan karyawan, di antaranya pengamanan aset dan properti perusahaan karena cukup tingginya tindak pelanggaran dari pihak luar, penilaian kerja dan *benefit* karyawan, serta perpanjangan kontrak kerja perusahaan kontraktor yang kerap mepet dan terjadi berulang-ulang.

Perseroan juga memiliki mekanisme *town hall meeting* dengan karyawan dan pekerja kontraktor/pemasok. Ada beberapa hal yang disampaikan dalam pelaksanaan *town hall meeting*, di antaranya terkait *safety*, produksi, dan kinerja keuangan.

- Sesuai bidang tugas dan tanggung jawab masing-masing, anggota Direksi bertemu dengan pemangku kepentingan tertentu, untuk membahas hal-hal yang berkaitan dengan pelaksanaan kebijakan keberlanjutan Perseroan.

Untuk meningkatkan penerapan keberlanjutan, selama periode pelaporan Perseroan menyertakan anggota Dewan Komisaris maupun Direksi dalam kegiatan untuk pengembangan pengetahuan dan pemahaman keberlanjutan, yaitu *global leadership summit - sustainability session* yang diadakan setiap tahun.

Evaluation of Sustainability Topics

During the reporting period, PT Vale conducted several activities involving stakeholders to convey important matters to the Board of Directors. [102-33][102-34]

- For the internal scope, the Company organized gemba walks, namely direct fact-gathering activities for improvement. During the reporting period, the gemba walks were conducted virtually by visiting SCM, Finance, External Relations & Corporate Affairs, Security Services and Medical Services functions. The dialogue was led by Deputy CEO of PT Vale, Febriany Eddy. A number of matters of concern were conveyed by employees, including safeguarding the Company's assets and property due to the high number of violations from outside parties, job appraisals and employee benefits, as well as extensions to work contracts for contractors, which are often too tight and recurring.

The Company also held town hall meetings with employees and contractors/suppliers. There were several messages and concerns conveyed during the town hall on subjects such as safety, production, and financial performance.

- In accordance with their respective areas of duty and responsibility, members of the Board of Directors meet with certain stakeholders to discuss matters related to the implementation of the Company's sustainability policy.

To improve the sustainability implementation, during the reporting period the Company involved members of the Board of Commissioners and Board of Directors in sustainability knowledge development and understanding through a global leadership summit / sustainability session which is held annually.



Kebijakan Remunerasi

Proses penetapan remunerasi Dewan Komisaris dan Direksi dilakukan melalui mekanisme RUPS. Sesuai RUPST 2020, diputuskan besaran remunerasi anggota Dewan Komisaris adalah AS\$16.750 per triwulan dan AS\$2.500 per rapat. RUPS mendelegasikan kewenangan kepada Dewan Komisaris untuk menentukan jumlah dan remunerasi lainnya bagi Direksi, dengan mempertimbangkan rekomendasi dari Komite Tata Kelola, Nominasi dan Remunerasi Perseroan. Dengan demikian Pemegang Saham menjadi satu-satunya pemangku kepentingan yang terlibat dalam proses penetapan remunerasi Dewan Komisaris dan Direksi. [102-35] [102-36][102-37]

Pengungkapan informasi tentang rasio remunerasi Direksi dan Dewan Komisaris disampaikan pada Laporan Tahunan 2020 PT Vale Indonesia Tbk. [102-38][102-39]

Remuneration Policy

The process for determining the Board of Commissioners and Board of Directors remuneration is carried out through the GMS. At the 2020 AGMS, it was decided that the remuneration for members of the Board of Commissioners would be set at US\$16,750 per quarter and US\$2,500 per meeting. The GMS delegated authority to the Board of Commissioners to determine the amount and other remuneration for the Board of Directors, after taking into account the recommendations from the Corporate Governance, Nomination and Remuneration Committee. Thus, Shareholders are the only stakeholders involved in the process of determining the Board of Commissioners and Board of Directors remuneration. [102-35] [102-36][102-37]

Disclosure of information on remuneration of the Board of Directors and Board of Commissioners, can be found in the 2020 Annual Report of PT Vale Indonesia Tbk. [102-38][102-39]

Penghargaan Sustainable Business

Komitmen PT Vale menerapkan GCG berbuah penghargaan Sustainable Business Awards (SBA) kategori Business Responsibility & Ethics. Panel juri SBA menilai Perseroan berhak mendapat penghargaan di kategori tersebut karena memiliki *anti-corruption manual*, yang mengatur penegakan nilai-nilai antikorupsi dan gratifikasi bagi karyawan dan kebijakan internalnya dalam menjalankan bisnis. Implementasi tersebut juga ditunjukkan melalui pelatihan antikorupsi bagi karyawan dan pemasoknya, membuat prosedur pengawasan internal dan berbagai kebijakan untuk mendukung hal tersebut termasuk Compliance Officer, serta pembuatan laporan secara rutin dan berkala tentang Indeks Kinerja Pemasok untuk merekam kualitas, transparansi dan perbaikan berkelanjutan antara perusahaan dan pemasok. Hal-hal tersebut juga dinilai sebagai bentuk implementasi aspek-aspek TPB dan tata kelola perusahaan yang baik (*good corporate governance*) sebagai poin lain penilaian SBA.

Sustainable Business Awards

PT Vale's commitment to implementing GCG has resulted in it receiving Sustainable Business Awards (SBA) in the Business Responsibility & Ethics category. The SBA jury panel assessed that the Company was entitled to an award in this category as it has an anti-corruption manual that regulates the enforcement of anti-corruption and gratuities values for employees, and it has internal policies in running its business. The GCG implementation was also demonstrated through the anti-corruption training held for employees and suppliers, the established internal control procedures and other supporting policies. This included having Compliance Officers, as well as preparing regular and periodic reports on the Supplier Performance Index to record the quality, transparency and continuous improvement between the Company and its suppliers. Other matters included in SBA's assessment were the implementation of SDG aspects and good corporate governance.

Pendekatan pada Pemangku Kepentingan Stakeholder Engagement



Salah satu hal penting dalam penerapan GCG adalah hubungan dengan pemangku kepentingan. Kami berkomitmen membangun hubungan dengan para pemangku kepentingan melalui pendekatan dan pelibatan sesuai dengan kebutuhan masing-masing.

Berdasarkan pemetaan yang telah dilakukan dan tertuang dalam *stakeholder mapping*, PT Vale telah mengidentifikasi pemangku kepentingan yakni kelompok dan individu yang dapat mempengaruhi dan/atau dipengaruhi oleh pencapaian tujuan perusahaan. Para pemangku kepentingan internal PT Vale adalah karyawan, pemimpin perusahaan, dan kontraktor. Sementara para pemangku kepentingan eksternal PT Vale adalah komunitas termasuk pemimpin formal dan informal; pemerintah dan swasta yakni pemerintah lokal, pemerintah pusat, TNI/Polri, investor, pelanggan, pemasok dan mitra, serta sektor publik; pengamat terdiri dari media massa, akademisi, lembaga swadaya masyarakat (LSM), dan entitas lain; masyarakat lokal. [102-40][102-42]

One important matter to consider in GCG implementation is the relationship with stakeholders. We are committed to building relationships with stakeholders through an approach and engagement method based on their respective needs.

Based on stakeholder mapping, PT Vale has identified its stakeholders, groups and individuals who can be influenced and/or be affected by the achievement of the Company's goals. PT Vale's internal stakeholders are employees, Company leaders and contractors. PT Vale's external stakeholders are the communities, including formal and informal leaders; government and private sectors, including local government, central government, TNI/Polri, investors, customers, suppliers and partners, as well as the public sector. Observers include the mass media, academics, non-governmental organizations (NGOs), and other entities; and local communities. [102-40][102-42]



Daftar Pemangku Kepentingan, Pendekatan dan Topik Pembahasan

List of Stakeholders, Approaches and Discussion Topics [102-40][102-43][102-44] [POJK51-5d]

Pemangku Kepentingan Stakeholders	Basis Identifikasi Identification Base	Topik Pembahasan Discussion Topics	Pendekatan dan Respon PT Vale Approach and Response of PT Vale	Frekuensi Pendekatan Approach Frequency
PEMANGKU KEPENTINGAN INTERNAL INTERNAL STAKEHOLDERS				
<ul style="list-style-type: none"> • Karyawan Employees • Pimpinan Perusahaan Corporate Leaders • Kontraktor Contractors 	<p>Kebijakan Komunikasi dan Sistem Pengelolaan Sosial. Communication Policy and Social Management System.</p>	<ul style="list-style-type: none"> • Pandemi COVID-19. COVID-19 pandemic. • Volatilitas harga nikel dunia. Volatility of world nickel prices. • Efisiensi, inovasi dan produktivitas berkelanjutan. Continuous efficiency, innovation and productivity. • Penguatan pasar. Market strengthening. • Penguatan kapasitas pemasok lokal dan penerapan tingkat komponen dalam negeri (TKDN). Strengthening the capacity of local suppliers and implementing the domestic component level (TKDN). • Kinerja ekonomi. Economic Performance. • Kesehatan dan keselamatan kerja. Occupational Health and Safety. • Pengelolaan lingkungan. Environmental management. 	<ul style="list-style-type: none"> • Penerapan protokol kesehatan pada seluruh kegiatan perusahaan. Implementation of health protocols in all company activities. • Biaya produksi yang kompetitif. Competitive production costs. • Peningkatan produksi dan penjualan nikel dalam matte. Increased production and sales of nickel in matte. • Penerapan program Promote National Interest (PNI) dan Local Business Initiative (LBI). Implementation of the Promote National Interest (PNI) and Local Business Initiative (LBI) programs. • Penerapan Safe Work Permit, Sistem Manajemen Keselamatan Pertambangan (SMKP), dan Contractor Safety Management System (CSMS). Application of Safe Work Permit, Mining Safety Management System (SMKP), and Contractor Safety Management System (CSMS). • Penerapan Sistem Manajemen Lingkungan dan PROPER. Implementation of Environmental Management System and PROPER. 	<ul style="list-style-type: none"> • Penerapan protokol kesehatan dilakukan sepanjang tahun selama masa pandemi COVID-19. Health protocols implemented throughout the year during the COVID-19 pandemic. • Penyusunan Rencana Kerja dan Anggaran Perusahaan (RKAP), dan sosialisasi, dilaksanakan sesuai kebutuhan. Preparation of the Company Work Plan and Budget (RKAP), and outreach, carried out as needed. • Evaluasi dan pelaporan kinerja berkala per triwulan, per semester dan per tahun. Evaluation and performance reporting quarterly, half-yearly and yearly. • Evaluasi kesehatan dan keselamatan kerja dilaksanakan sepanjang tahun. Occupational health and safety evaluations are carried out throughout the year. • Evaluasi kinerja kontraktor dilaksanakan berkala, sesuai kebutuhan. Contractor performance evaluation is carried out periodically, as needed. • Pelaporan kinerja pengelolaan lingkungan secara berkala, per triwulan, per semester, dan per tahun sesuai kebutuhan. Environmental management performance reporting regularly, quarterly, half-yearly, and yearly as needed.

Pemangku Kepentingan Stakeholders	Basis Identifikasi Identification Base	Topik Pembahasan Discussion Topics	Pendekatan dan Respon PT Vale Approach and Response of PT Vale	Frekuensi Pendekatan Approach Frequency
PEMANGKU KEPENTINGAN EKSTERNAL EXTERNAL STAKEHOLDERS				
<ul style="list-style-type: none"> • Komunitas Community • Pemimpin Formal Formal Leader • Pemimpin Informal Informal Leader 	Kebijakan Komunikasi dan Sistem Pengelolaan Sosial Communication Policy and Social Management System	<ul style="list-style-type: none"> • Perekutran pekerja lokal. Recruitment of local workers. • Pemberdayaan komunitas (masyarakat lokal). Community empowerment (local communities). 	<ul style="list-style-type: none"> • Pelibatan pekerja lokal dilakukan melalui proses rekrutmen oleh perusahaan, maupun melalui kontraktor. Involvement of local workers through a recruitment process by the Company, as well as through contractors. • Pertemuan dengan perwakilan masyarakat melalui forum Badan Kerja sama Antar Desa (BKAD) untuk membahas, menyusun dan evaluasi program Pengembangan dan Pemberdayaan Masyarakat (PPM). Meetings with community representatives through the Inter-Village Cooperation Agency (BKAD) forum to discuss, compile and evaluate the Community Development and Empowerment (PPM) program. 	<ul style="list-style-type: none"> • Rekrutmen karyawan dilakukan sesuai kebutuhan dan kegiatan operasi maupun produksi perusahaan. Employee recruitment is carried out based on the Company's needs and operations and production activities. • Forum BKAD dilaksanakan secara berkala di awal tahun, pertengahan tahun dan akhir tahun, serta dapat sewaktu-waktu sesuai kebutuhan. Pada periode pelaporan, telah dilakukan empat kali pertemuan dengan forum BKAD. BKAD Forum held regularly at the beginning of the year, mid-year and end of the year, and at any time as needed. During the reporting period, four meetings were held with a BKAD forum.
<ul style="list-style-type: none"> • Pemerintah dan Swasta Government and Private • Pemerintah Lokal Local Government • Pemerintah Pusat Central Government • TNI/Polri Indonesian Army/ Police • Investor Investors • Pelanggan Customers • Pemasok dan Mitra Suppliers and Partners • Sektor Publik Public Sector 	Kebijakan Komunikasi dan Sistem Pengelolaan Sosial Communication Policy and Social Management System	<ul style="list-style-type: none"> • Divestasi saham Perseroan. Divestment of the Company's shares. • Kontribusi pada negara dan daerah. Contribution to the state and regions. • Pengamanan aset. Safeguarding assets. • Pengelolaan lingkungan dan tata kelola. Environmental management and governance. • Kinerja Perseroan. Company performance. 	<ul style="list-style-type: none"> • Realisasi divestasi 20% saham Perseroan kepada Pemerintah Indonesia melalui PT Indonesia Aluminium (Persero) atau MIND ID. Completed divestment of 20% of the Company's shares to the Government of Indonesia through PT Indonesia Aluminum (Persero) or MIND ID. • Pembayaran pajak dan penerimaan negara bukan pajak (PNBP). Payment of taxes and non-tax state revenue (PNBP). • Koordinasi dan patroli bersama. Coordination and joint patrols. • Penerapan Sistem Manajemen Lingkungan dan kepatuhan pada regulasi. Implementation of an Environmental Management System and compliance with regulations. • Pelaporan berkala kinerja Perseroan. Periodic reporting of the Company's performance. 	<ul style="list-style-type: none"> • Divestasi saham telah dilaksanakan pada 7 Oktober 2020. The divestment of shares was carried out on October 7, 2020. • Pembayaran pajak dan PNBP dilakukan sesuai waktu yang ditetapkan Pemerintah. Total pajak dan PNBP yang dibayarkan pada tahun 2020 mencapai AS\$72.995 ribu. Payment of taxes and PNBP at the time set by the Government. Total taxes and PNBP paid in 2020 reached US\$7,995 thousand. • Koordinasi dan patroli bersama dilaksanakan secara berkala sesuai kebutuhan. Coordination and joint patrols are carried out periodically as needed. • Pelaporan pengelolaan lingkungan disampaikan secara berkala, per triwulan, per semester dan per tahun atau sesuai kebutuhan. Environmental management reports submitted periodically, quarterly, half-yearly and yearly or as needed. • Pelaporan kinerja produksi dan penjualan dilaksanakan berkala, per triwulan, per semester dan per tahun. Production and sales performance reporting carried out periodically, quarterly, half-yearly and yearly. • Penyelenggaraan RUPS Tahunan satu kali dalam setiap tahun dan RUPS Luar Biasa sesuai kebutuhan. RUPS Tahunan 2020 diselenggarakan pada 29 Juli 2020 dan RUPS Luar Biasa 2020 pada 7 September 2020. Annual GMS once a year and Extraordinary GMS as needed. The 2020 Annual GMS was held on July 29, 2020 and the 2020 Extraordinary GMS on September 7, 2020.



Pemangku Kepentingan Stakeholders	Basis Identifikasi Identification Base	Topik Pembahasan Discussion Topics	Pendekatan dan Respon PT Vale Approach and Response of PT Vale	Frekuensi Pendekatan Approach Frequency
PEMANGKU KEPENTINGAN EKSTERNAL EXTERNAL STAKEHOLDERS				
<ul style="list-style-type: none"> • Pengamat Observers • Media Massa Media • Akademisi Academicians • LSM NGOs • Entitas Lain Other Entities 	<p>Kebijakan Komunikasi dan Sistem Pengelolaan Sosial Communication Policy and Social Management System</p>	<ul style="list-style-type: none"> • Keterbukaan dan kemudahan akses informasi. Openness and easy access to information. • Konsultasi, penelitian dan kerja sama. Consultation, research and cooperation. 	<ul style="list-style-type: none"> • Publikasi dan penyampaian informasi publik melalui jumpa pers, rilis berita, dan public expose. Application and delivery of public information through press conferences, news releases, and public exposes. • Pertemuan dan diskusi terkait pelaksanaan tanggung jawab sosial dan lingkungan (TJSL). Meetings and discussions related to the implementation of social and environmental responsibility (TJSL). • Kerja sama penelitian dan kegiatan dalam rangka TJSL. Collaboration on research and activities in the context of TJSL. 	<ul style="list-style-type: none"> • Publikasi dan penyampaian informasi publik dilaksanakan sesuai kebutuhan. Kegiatan public expose pada tahun 2020 dilaksanakan pada 26 Agustus 2020 difasilitasi Bursa Efek Indonesia. Publication and delivery of public information carried out as needed. A public expose was held on August 26, 2020 facilitated by the Indonesia Stock Exchange. • Pertemuan dan diskusi dilaksanakan sesuai kebutuhan Perseroan. Meetings and discussions are held according to the needs of the Company. • Pada periode pelaporan, Perseroan telah bekerja sama dengan perguruan tinggi, LSM, dan entitas lain. During the reporting period, the Company collaborated with universities, NGOs, and other entities.
Masyarakat Lokal Local Communities	<p>Kebijakan Komunikasi dan Sistem Pengelolaan Sosial Communication Policy and Social Management System</p>	<ul style="list-style-type: none"> • Penghormatan dan pemenuhan pada hak-hak adat serta kearifan lokal. Respect and fulfillment of customary rights and local wisdom. 	<ul style="list-style-type: none"> • Membangun dialog dan komunikasi dengan masyarakat lokal, melalui berbagai pertemuan dan forum resmi yang diselenggarakan pemerintah pusat maupun daerah. Building dialogue and communication with local communities, through various official meetings and forums held by the central and local governments. 	<ul style="list-style-type: none"> • Dilaksanakan sesuai kebutuhan dan berkelanjutan. Implemented as needed and continuously.

Profil Laporan

Report Profile



Laporan Keberlanjutan diterbitkan setiap tahun. Laporan periode sebelumnya diterbitkan pada 30 Juni 2020. Periode pelaporan 1 Januari – 31 Desember 2020. Pada Laporan ini, terdapat pernyataan kembali (*restatement*) untuk data energi, emisi, dan limbah karena adanya perubahan metode perhitungan. Cakupan pelaporan meliputi area operasi di Sorowako, Bahodopi, Pomalaa, Kantor Perwakilan di Makassar, dan Kantor Pusat di Jakarta. Laporan keuangan konsolidasian disusun terpisah dan telah diaudit kantor akuntan publik. Informasi non-keuangan telah melalui proses *assurance* oleh pihak eksternal independen berdasarkan persetujuan Direktur, yakni SR Asia perwakilan Indonesia, yang mempunyai lisensi AA1000 AS. Proses *assurance* dilakukan secara daring pada 22 dan 23 Februari 2021.

[102-45][102-48][102-50][102-51][102-52][102-56]

Sustainability reports are published annually. The previous report was published on June 30, 2020. The reporting period for this report covers January 1 - December 31, 2020. There was a restatement for energy, emission, and waste data due to the change of calculation method. The coverage of the reporting includes operational areas in Sorowako, Bahodopi, Pomalaa, Representative Offices in Makassar, and Head Office in Jakarta. The consolidated financial statements are prepared separately and have been audited by a public accounting firm. Non-financial information has been through an assurance process by an independent external party based on the approval of the Director, namely SR Asia, Indonesia representative with a US AA1000 license. The assurance process was carried out online on February 22 and 23, 2021.

[102-45][102-48][102-50][102-51][102-52][102-56]



Acuan pelaporan:

- Standar Global Reporting Initiatives (GRI) Konsolidasi edisi tahun 2020: opsi Core. [102-54]
- Mining and Metal Sector Supplement (MMSS) GRI;
- Peraturan Otoritas Jasa Keuangan (POJK) No.51/POJK.03/2017 tentang Penerapan Keuangan Berkelanjutan bagi Lembaga Jasa Keuangan, Emiten dan Perusahaan Publik.

Pengungkapan informasi disesuaikan dengan bisnis Perseroan di bidang pertambangan mineral. Laporan tidak mengungkapkan informasi kurang relevan, yakni survei kepuasan pelanggan, penggunaan material ramah lingkungan, produk ramah lingkungan dan beberapa hal terkait penerapan Keuangan Berkelanjutan antara lain permasalahan yang dihadapi, target pembiayaan, serta tanggung jawab pengembangan produk. Selain itu, tidak terdapat tumpahan yang terjadi akibat kegiatan operasi Perusahaan.

- Sustainability Accounting Standards Board (SASB) Metals and Mining: matriks akuntansi dan kegiatan

Reporting reference:

- Global Reporting Initiatives (GRI) Standards 2020 edition: Core option; [102-54]
- Mining and Metal Sector Supplement (MMSS) GRI;
- Financial Services Authority Regulation (POJK) No.51 / POJK.03 / 2017 concerning the Implementation of Sustainable Finance for Financial Service Institutions, Issuers and Public Companies.

Disclosure of information is tailored to the Company's business in the mineral mining sector. The report does not disclose less relevant information, including customer satisfaction surveys, use of environmentally friendly materials, environmentally friendly products and several matters related to the implementation of Sustainable Finance, including problems faced, financing targets, and product development responsibilities. In addition, there were no spills resulting from the Company's operations.

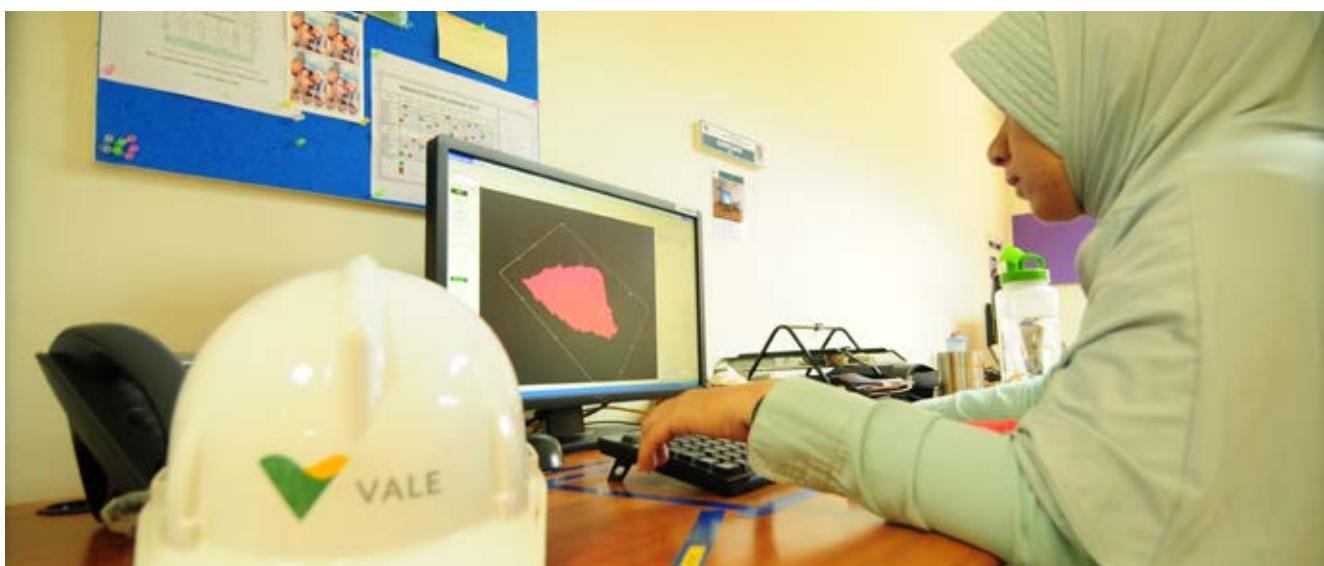
- Sustainability Accounting Standards Board (SASB) Metals and Mining: accounting and activity metrics

Penentuan Isi Laporan [102-46]

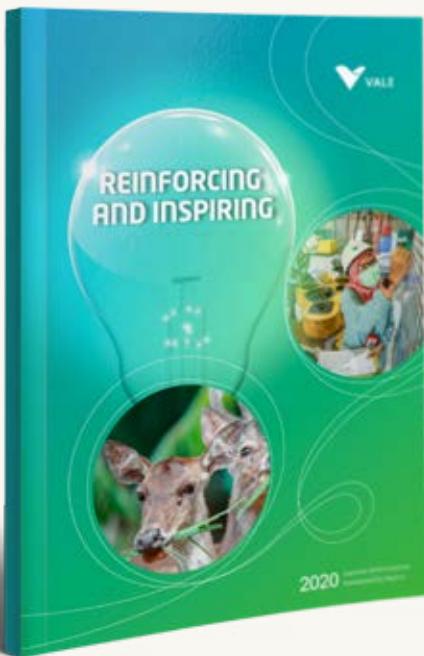
Laporan disusun berdasarkan prinsip dan tahapan pelaporan, dengan tetap memperhatikan topik material yang telah ditentukan.

Report Content Determination [102-46]

This Report has been prepared based on reporting principles and stages, while taking into account material topics that have been determined.



Prinsip-Prinsip Isi dan Kualitas Laporan
Principles of Report Content and Quality



Laporan Keberlanjutan 2020
2020 Sustainability Report

**Keterlibatan
Pemangku Kepentingan**
Stakeholder Engagement

Komparabilitas
Comparability

Materialitas
Materiality

Keseimbangan
Balance

Konteks Keberlanjutan
Sustainability Context

Akurasi
Accuracy

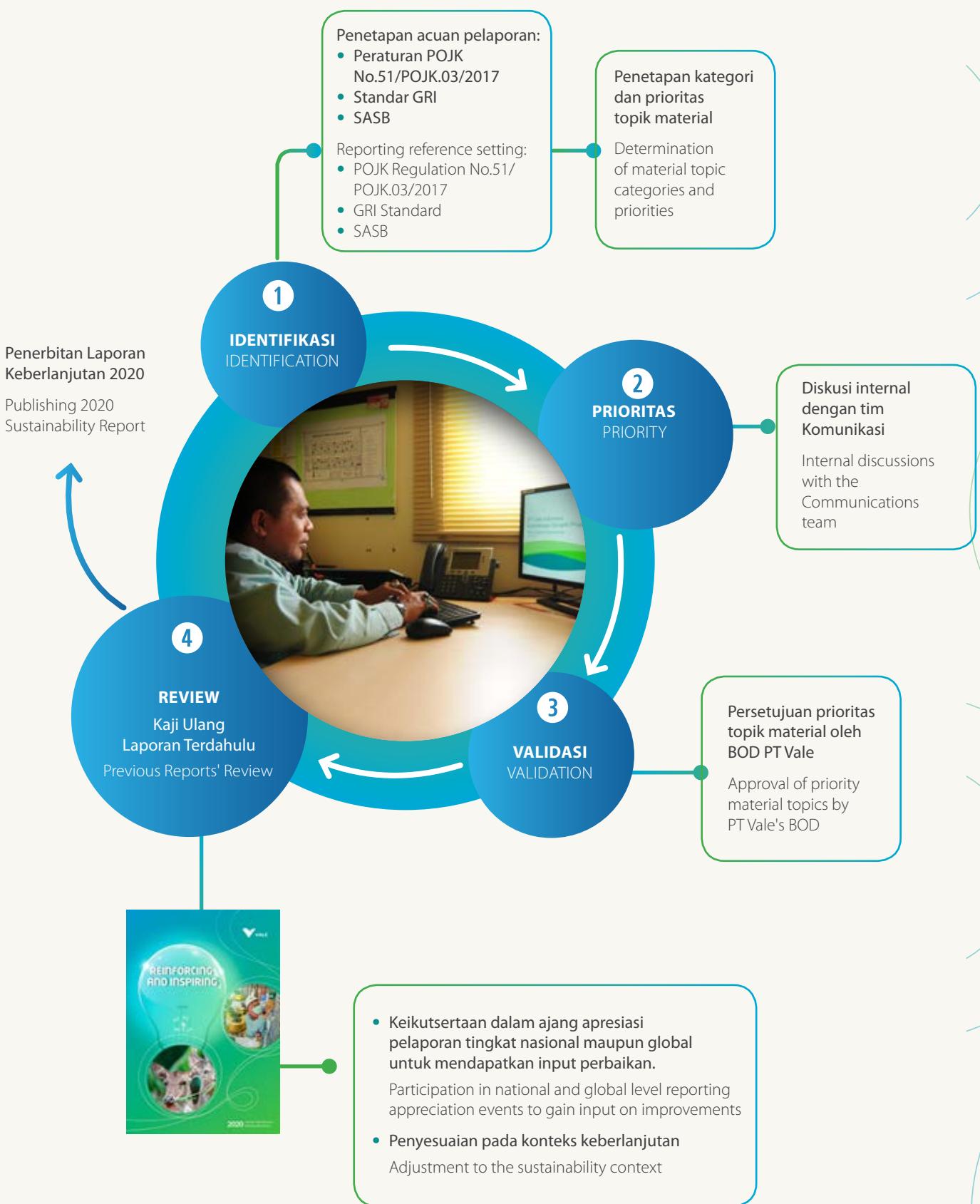
Kelengkapan
Completeness

Keandalan
Reliability

Kejelasan
Clarity

Ketepatan Waktu
Punctuality





Topik Material dan Kesesuaian dengan TPB [102-49]

Topik material dalam Laporan mengalami perubahan dari periode sebelumnya, yaitu mengganti topik "Kepatuhan Lingkungan" menjadi topik "Emisi" dan "Energi". Pemilihan topik material "Energi" dan "Emisi" dipilih agar kinerjanya dapat dikelola dan dipantau secara maksimal. Pemenuhan setiap topik material disesuaikan dengan dukungan pada Tujuan ke-3, 5, 7, 11, 13, 16, dan 17.

Pengelolaan Dampak Negatif

Negative Impact Management [413-1] [413-2]

Topik Material Material Topics	Kesesuaian TPB SDGs Compliance
Kesehatan dan Keselamatan Kerja Occupational Health and Safety	
Kinerja Ekonomi Economic Performance	
Emisi Emissions	
Energi Energy	
Komunitas Lokal Local Community	
Rehabilitasi Pascatambang Post-Mining Rehabilitation	

Material Topics and Conformity with SDGs [102-49]

The material topics covered in this Report show a change from the previous period, namely changing the topic "Environmental Compliance" to "Emissions" and "Energy" topics. The selection of "Energy" and "Emissions" topics was so that their performance could be maximally managed and monitored. Each material topic fulfillment is adjusted to supporting Goals 3, 5, 7, 11, 13, 16, and 17.



Batasan Dampak Topik Material dan Alasan Pengungkapan

Limitation of Impact on Material Topics and Reasons for Disclosure [102-44] [102-46] [102-47] [103-1]

Topik Material Material Topics	Wilayah Terdampak Affected Areas		Alasan Pengungkapan Informasi Topik Keberlanjutan Reasons for Disclosing Information on Sustainability Topics
	Kantor Pusat Head Office	Area Operasi Operating Areas	
Kesehatan dan Keselamatan Kerja Occupational Health and Safety		✓ Sorowako Bahodopi Pomalaa	<ul style="list-style-type: none"> K3 penting diinformasikan karena karakteristik operasi yang dijalankan Perusahaan memiliki risiko tinggi terhadap kesehatan dan keselamatan karyawan. K3 penting diinformasikan agar pemangku kepentingan mengetahui komitmen Perusahaan menyediakan tempat kerja sehat dan aman, sesuai nilai: kehidupan adalah yang terpenting. OHS information is important as the operations carried out by the Company pose a high risk to health and employee safety. OHS information is important so that stakeholders are aware of the Company's commitment to providing a healthy and safe workplace, according to its value: life matters most.
Kinerja Ekonomi Economic Performance	✓	✓ Sorowako	<p>Kinerja ekonomi penting dilaporkan karena menjadi dasar penyelenggaraan operasi Perusahaan, serta risiko yang ada dapat berdampak pada kinerja keuangan.</p> <p>Economic performance is important as it is the basis for the Company's operation, and the existing risks can have an impact on financial performance.</p>
Emisi Emissions	✓	✓ Sorowako	<p>Pengendalian emisi penting dilaporkan, seiring kebijakan Vale Global untuk mengurangi 5% emisi gas rumah kaca (GRK) pada tahun 2020.</p> <p>Emission control is important as it aligns with Vale Global's policy to reduce 5% of greenhouse gas (GHG) emissions by 2020.</p>
Energi Energy	✓	✓ Sorowako	<p>Penting diungkapkan karena energi dibutuhkan untuk kegiatan operasional Perseroan, dan mendukung upaya untuk mengendalikan emisi GRK melalui efisiensi energi serta penggunaan energi baru dan terbarukan (EBT).</p> <p>Energy is important as energy is needed for the Company's operational activities, and supports efforts to control GHG emissions through energy efficiencies and the use of new and renewable energy (NRE).</p>
Komunitas Lokal Local Community	N/A	✓ Sorowako	<ul style="list-style-type: none"> Penting diungkapkan karena komunitas lokal merupakan salah satu pemangku kepentingan strategis yang berkembang bersama Perusahaan. Penting diungkapkan karena Perusahaan terus berupaya meningkatkan kesejahteraan masyarakat lokal melalui PPM. An important disclosure as the local community is one of the strategic stakeholders that has developed with the Company. An important disclosure as the Company continues to work to improve the local communities welfare through the PPM.
Rehabilitasi Pascatambang Post-mining Rehabilitation		✓ Sorowako	<p>Penting diungkapkan karena kegiatan pertambangan berpotensi mengubah bentang alam, sehingga diperlukan upaya untuk menjamin pemanfaatan lahan di wilayah bekas kegiatan pertambangan agar berfungsi sesuai peruntukannya. PT Vale memiliki kebijakan dalam hal rehabilitasi kawasan bekas kegiatan penambangan ore, dan memperlihatkan hasil yang cukup baik.</p> <p>An important disclosure as mining activities have the potential to change the landscape, so efforts are needed to ensure land use in post mining areas function as designed. PT Vale has policies for rehabilitating former ore mining areas that have shown good results.</p>