



**Improving  
Responsibly**

## Improving Responsibly



***“Improving Responsibly”*** menggambarkan komitmen PT Vale untuk melanjutkan perjalanan setelah 50 tahun berlalu. Terus meningkatkan kinerja secara bertanggung jawab, menjadi satu kesatuan yang melengkapi 'pertumbuhan yang berkelanjutan', sebagaimana disampaikan dalam Laporan Tahunan PT Vale 2019. Komitmen meningkatkan kinerja meliputi aspek ekonomi, sosial dan lingkungan yang ditunjukkan dengan pencapaian berbagai bidang, salah satunya PROPER Hijau. Secara keseluruhan, PT Vale meneruskan tanggung jawabnya untuk menjadi sebuah perusahaan nikel terpercaya di Indonesia dengan mendukung pencapaian tujuan pembangunan berkelanjutan, serta merespon tuntutan global pada pengelolaan lingkungan, sosial dan tata kelola (LST).

***“Improving Responsibly”*** describes how after 50 years PT Vale is committed to continuing its journey. It is continuing to improve its performance responsibly, as a single unit to complete its 'sustainable growth', as outlined in the PT Vale 2019 Annual Report. It is committed to improving its economic, social and environmental performance, as demonstrated by achieving Green PROPER. Overall, PT Vale is continuing its responsibility to become a trusted nickel company in Indonesia by supporting the sustainable development goals, and responding to global demands for environmental, social and governance (ESG) management.

## Catatan untuk Pembaca Laporan

### Notes to the Readers of the Report

Tabel dan grafik pada laporan ini memaparkan data numerik dengan standar Bahasa Inggris. Pemaparan numerik dalam teks menggunakan standar Bahasa Inggris dan Indonesia, sesuai konteksnya. Semua satuan ukuran nikel dalam *matte* dan mineral lainnya dalam laporan ini adalah metrik ton. Satu metrik ton sama dengan 2.204,62 pon dan disajikan sebagai "ton".

In this report, all tables and graphs use numerical data in standard English. Numerical values are presented in English and Indonesian. All measurements of nickel in *matte* and other mine materials are reported in metric tonnes, with one metric tonne equal to 2,204.62 pounds, and referred to as "ton".

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## Peringatan atas Pernyataan- Pernyataan Mengenai Masa Depan

### Caution Regarding Forward-looking Statements

Dalam dokumen ini mungkin terdapat rencana, proyeksi, strategi dan tujuan Perusahaan tertentu, yang bukan merupakan pernyataan fakta historis dan perlu dipahami sebagai pernyataan mengenai masa depan berdasarkan hukum yang berlaku. Pernyataan mengenai masa depan tergantung pada risiko dan ketidakpastian yang dapat menyebabkan keadaan dan hasil aktual Perusahaan di masa depan berbeda dari yang diharapkan atau diindikasikan. Tidak ada jaminan bahwa hasil-hasil yang diantisipasi oleh Perusahaan, atau diindikasikan oleh pernyataan-pernyataan mengenai masa depan, akan tercapai.

This document may contain certain plans, projections, strategies and objectives of the Company that are not statements of historical fact and would be treated as forward-looking statements under applicable law. Forward-looking statements are subject to risks and uncertainties that may cause actual events, and the Company's future results, to be different than expected or indicated by such statements. No assurance can be given that the results anticipated by the Company, or indicated by such forward-looking statements, will be achieved.



# Peristiwa Penting 2019

## Significant Events In 2019



**18 Januari**  
January 18

PT Vale memulai rangkaian kegiatan Bulan K3 2019 (12 Januari –12 Februari) dengan apel bersama bertempat di halaman Main Office, Plant Site, Sorowako. Bulan K3 2019 mengangkat tema “Mewujudkan Kemandirian Masyarakat Indonesia yang Berbudaya K3 untuk Mendukung Stabilitas Nasional” merupakan event tahunan Perusahaan sebagai ajang kampanye dan edukasi K3.

PT Vale started a series of activities in the 2019 OHS Month (January 12-February 12) with an opening ceremony at the Main Office, Plant Site, Sorowako. The 2019 OHS Month had the theme “Realizing the Independence of OHS Cultured Indonesian Communities to Support National Stability”. This is an annual Company event as a venue for OHS campaigns and education.



**6 Februari**  
February 6

PT Vale menggelar Simposium “Keberlanjutan: Investasi Masa Depan” di Hotel Claro, Makassar. Simposium menghadirkan panelis yang merupakan praktisi di bidang keberlanjutan dan dihadiri oleh 200 tamu undangan dari Pemerintah Provinsi Sulawesi Selatan, akademisi, korporasi, LSM, dan para jurnalis. Tujuan simposium sebagai upaya pengembangan wawasan seputar keberlanjutan khususnya di industri tambang. Acara dibarengi dengan Vale Journalistic Awards 2018.

PT Vale held a “Sustainability: Future Investment” Symposium at the Claro Hotel, Makassar. The symposium presented panelists who are practitioners in the field of sustainability and was attended by 200 guests from the South Sulawesi Provincial Government, academicians, corporations, NGOs, and journalists. The purpose of the symposium was to develop insights about sustainability, especially in the mining industry. The 2018 Vale Journalistic Awards were presented at the event.



**14 Februari**  
February 14

Bersamaan acara Town Hall Meeting, Deputy CEO PT Vale Febriany Eddy menyatakan Process Plant Housekeeping Project dengan tema “We Have A Dream” resmi dimulai. Project perbaikan konstruksi dan fasilitas pabrik ini ditargetkan berjalan selama 3 tahun ke depan dan selesai pada tahun 2021.

At a Town Hall Meeting, PT Vale’s Deputy CEO, Febriany Eddy announced that the Process Plant Housekeeping Project with the theme “We Have A Dream” had begun. This project to improve construction and plant facilities is targeted to run for the next three years and will be completed in 2021.



**28 Februari**  
February 28

Penyerahan bantuan puskesmas dan dua unit hunian sementara (huntara) kepada Pemerintah Kota Palu yang berlangsung di Kantor Kecamatan Palu Utara untuk warga Kelurahan Mamboro, Palu Utara yang merupakan korban gempa dan tsunami yang terjadi September 2018.

Donations in the form of puskesmas and two temporary shelter units were granted to the Palu City Government, at the North Palu District Office for residents of the Mamboro Village, North Palu, who were victims of the earthquake and tsunami in September 2018.



**3 Mei**  
May 3

Bertempat di Hall Taman Antar Bangsa, Sorowako, PT Vale bersama Pemkab Luwu Timur meluncurkan Program Pengembangan Kawasan Perdesaan Mandiri (PKPM) yang merupakan bagian dari Program Pengembangan dan Pemberdayaan Masyarakat (PPM).

Located in the Taman Antar Bangsa Hall, Sorowako, PT Vale, together with the East Luwu Regency Government, launched the Independent Rural Area Development Program (PKPM), part of the Community Development and Empowerment Program (PPM).



**23 Mei**  
May 23

Boiler Listrik Baru PT Vale mendapat “buku merah” (persetujuan pengoperasian penuh) oleh Dinas Ketenagakerjaan dan Transmigrasi (Disnakertrans) Provinsi Sulawesi Selatan. Boiler baru ditenagai listrik yang berasal dari PLTA. Menggantikan model sebelumnya yang ditenagai bahan bakar high sulfur fuel oil (HSFO).

PT Vale’s New Electric Boiler received a “red book” (full operating agreement) from the South Sulawesi Province Manpower and Transmigration Office (Disnakertrans). The new boiler is powered by electricity from the hydropower plants, replacing the previous model, powered by HSFO (high sulfur fuel oil) fuel.





**9 Juli**  
July 9

Para leaders level L2 hingga L4 mengikuti pelatihan "Alignment & Basic Calibration of Beyond Compliance Toward Green/Gold PROPER" di Hall TAB, Sorowako. Pelatihan ini bertujuan untuk persiapan PT Vale menuju PROPER Hijau.

L2 to L4 level leaders attended the "Alignment & Basic Calibration of Beyond Compliance Toward Green / Gold PROPER" training at the TAB Hall, Sorowako. This training is to prepare PT Vale for Green PROPER.



**23 September**  
September 23

CEO Vale SA Eduardo Bartolomeo menemui Presiden Indonesia Joko Widodo di Istana Negara, Jakarta. Pertemuan tersebut membahas divestasi PT Vale sesuai amanat amendemen Kontrak Karya PT Vale dengan Pemerintah Indonesia.

Vale SA CEO Eduardo Bartolomeo met with Indonesian President Joko Widodo at the State Palace, Jakarta. The meeting was held to discuss PT Vale's divestment under PT Vale's Contract of Work mandate amendment with the Government of Indonesia.



**2 Oktober**  
October 2

Project Penguatan Dam Batubesi dan Laron Canal Lining dinyatakan selesai. Hal itu ditandai kunjungan Deputy CEO Febriany Eddy dan COO Vinicius Mendes Ferreira ke lokasi.

The Batubesi Dam strengthening and Laron Canal Lining project was declared complete. This declaration was marked by the visit of Deputy CEO Febriany Eddy and COO Vinicius Mendes Ferreira to the location.



**4 November**  
November 4

Tim Gender Diversity Project PT Vale (Departemen People & Culture, Mines dan Communications) melakukan studi ke Kaltim Prima Coal (KPC) di Kalimantan Timur dan Adaro di Kalimantan Selatan dalam hal penerapan kesetaraan dan keberagaman gender di lingkungan kerja tambang. Aktivitas ini bertujuan untuk merumuskan rekomendasi strategi, konsep dan penggalangan data untuk implementasi pilot project tersebut.

PT Vale's Gender Diversity Project Team (Department of People & Culture, Mines and Communications) conducted a study at Kaltim Prima Coal (KPC) in East Kalimantan and Adaro in South Kalimantan in terms of applying gender equality and diversity in the mining environment. This activity was to formulate recommendations for strategies, concepts and data collection for the pilot project implementation.



**1 Desember**  
December 1

Kolaborasi Departemen SCM PT Vale dan section Communications dengan komunitas lari Vale Runners sukses menggelar Sorowako Run 2019 yang diikuti lebih dari seribu pelari. Acara berlangsung di Lapangan Camp Site, Sorowako dengan mengangkat tema "Work Life Balance".

Collaboration between PT Vale's SCM Department and Communications section with the Vale Runners community successfully held the Sorowako Run 2019, where more than one thousand runners participated. The event took place at the Camp Site Field, Sorowako with the "Work-Life Balance" theme.



**11 Desember**  
December 11

PT Vale bersama Pemerintah Kabupaten Luwu Timur, Badan Penanggulangan Bencana Daerah Luwu Timur dan masyarakat menggelar simulasi Rencana Tindak Darurat (RTD) Bendungan Seri Sungai Larona di lima desa di Kecamatan Malili. Kegiatan ini untuk mengukur kesiapsiagaan seluruh pihak pemangku kepentingan terhadap terjadinya bencana gempa atau banjir dan merupakan bagian dari ketentuan yang diatur Dokumen Panduan RTD Bendungan Seri Sungai Larona.

PT Vale together with the East Luwu Regency Government, the East Luwu Disaster Management Agency and the community held a Larona River Dam Emergency Action Plan (EAP) simulation in five villages in Malili Sub-district. This activity measured the preparedness of all stakeholders in the event of an earthquake or flood, as part of the provisions regulated in the Larona River Dam EAP Guidelines Document.



**17 Desember**  
December 17

PT Vale berhasil mendapatkan peringkat PROPER Hijau. Peringkat tersebut menandakan pengelolaan lingkungan telah melampaui ketaatan (beyond compliance) dalam hal pengelolaan lingkungan dan pemberdayaan masyarakat.

PT Vale received a Green PROPER rating, indicating that its environmental management has gone beyond compliance in terms of environmental management and community empowerment.



# Ikhtisar Kinerja Keberlanjutan

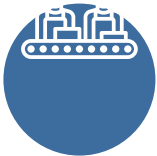
## Sustainability Performance Overview



### Kinerja Ekonomi

Economic Performance

Uraian Description	Satuan Unit	2019	2018	2017
<b>Kinerja Produksi</b> Production Performance				
Produksi Nikel dalam <i>Matte</i> Nickel in <i>Matte</i> Production	Ton	71,025	74,806	76,807
Cadangan Bijih Nikel Terbukti Proven Nickel Ore Reserves	Juta Ton (DKP)	66.2	101.8	82.7
Cadangan Bijih Nikel Terkira Proven Nickel Ore Reserves	Million Tons (DKP)	41.4	14.7	12.4
<b>Kinerja Ekonomi</b> Economic Performance				
Pendapatan Revenue		782,012	776,900	629,334
Total Distribusi Nilai Ekonomi Total Economic Value Distribution	Ribu USD Thousand USD	(815,864)	(671,960)	(573,652)
Total Nilai Ekonomi Ditahan Total Economic Value Retained		(29,193)	109,492	58,445
Laba Bersih Net Profit		57,400	60,512	(15,271)
<b>Pelibatan Pemasok Lokal</b> Involvement of Local Suppliers				
Pelibatan Perusahaan Lokal Involvement of Local Companies	Unit	295	295	295



### Kinerja Sosial

Social Performance

Uraian Description	Satuan Unit	2019	2018	2017
<b>Jumlah Karyawan dan Pelatihan</b> Total Employees and Training				
Total Karyawan Total Employees	Orang People	3,044	3,092	3,165
Total Jam Pelatihan Total Training Hours	Jam Hours	125,070	123,393	73,304
Jam Pelatihan Per Karyawan Training Hours Per Employee	Jam/Orang Hours/Person	42	40	23

Uraian Description	Satuan Unit	2019	2018	2017
<b>Keselamatan dan Kesehatan Kerja</b> Occupational Health and Safety				
Jam Pelatihan Per Karyawan K3 Employee OHS Training Hours	Jam Hours	16	14	14
Tingkat Kekerapan Cidera Tercatat Recordable Injury Frequency Rate	%	0.53	0.51	0.79
Jam Kerja Selamat Safe Working Hours	Jam Hours	4,881,030	34,138,226	14,267,341
Kehilangan Hari Kerja Lost Work Days	Hari Days	88	0	80





## Pemberdayaan Berkelanjutan

Sustainable Empowerment



## Kinerja Lingkungan

Environmental Performance

PT Vale menerapkan Vale Production System (VPS) dalam penatagunaan produk untuk memastikan produk aman bagi lingkungan dan dapat didaur ulang.

PT Vale apply Vale Production System (VPS) in product stewardship to ensure that the product is safe for the environment and is recyclable.

Uraian Description	Satuan Unit	2019	2018	2017
<b>Program Pengembangan dan Pemberdayaan Masyarakat (PPM)</b> Integrated Community Development and Empowerment Program (PPM)				
Jumlah Program/Kegiatan Number of Programs/Activities	Unit	47	10	285
Jumlah Dana Total Funds	Juta USD Million USD	3.4	3.0	2.2
Perkiraan Jumlah Penerima Manfaat Estimated Number of Beneficiaries	Desa Villages	38	38	38
	Individu Individuals	38,000	32,000	12,000
<b>Donasi dan Pemberian Bantuan</b> Donation and Additional Assistance				
Anggaran Donasi Tambahan di luar Program PPM Additional Donation Budget outside the PPM Program	Ribu USD Thousand USD	153	90	52

\*Perhitungan data berbeda dengan tahun lalu, data yang ditampilkan hanya berupa program besar di 10 kawasan tertentu.

\*Calculation of data is different from last year, the data reported only covers the main programs in 10 specific regions. [102-48]

Uraian Description	Satuan Unit	2019	2018	2017
<b>Kinerja Pengendalian Emisi</b> Emission Control Performance				
Intensitas SO <sub>2</sub> SO <sub>2</sub> Intensity	Ton SO <sub>2</sub> /Ton Ni	0.72	0.74	0.75
Total Emisi GRK* Total GHG Emissions	Ton CO <sub>2</sub> eq	1,909,279	2,082,580	2,024,196
Pengurangan Emisi Emissions Reduction	Ton CO <sub>2</sub> eq	173,301	(58,384)	N/A
<b>Pemanfaatan Energi</b> Energy Used Performance				
Pemakaian Energi Energy Usage	GigaJoule	22,958,664	25,890,639	26,395,669
Intensitas Energi Energy Intensity	GigaJoule/Ton	323.25	346.10	343.66
Intensitas Penggunaan HSFO HSFO Usage Intensity	Barrel/ton	19.98	20.15	21.22
<b>Pengelolaan Limbah</b> Waste Management				
Overburden	WMT	42,968,601	40,574,694	35,373,104
Limbah Domestik Non B3 Non-B3 Domestic Waste	Ton	4,896	5,832	4,148
<b>Pengelolaan Lahan</b> Land Management				
Luasan Lahan Direhabilitasi Rehabilitated Land Area	Ha	81.09	93.31	57.74
Total Luasan Lahan Direhabilitasi Total Rehabilitated Land Area	Ha	4,249.45	4,250.63	4,158.78
<b>Pemanfaatan Energi Terbarukan</b> Renewable Energy Used				
Pembangkit Listrik Tenaga Air Hydroelectric Power Plants	Unit	3	3	3
	MW	365	365	365
<b>Keanekaragaman Hayati</b> Biodiversity				
Jumlah Pohon Ditanam Total Trees Planted	Batang/Ha Stem/Ha	79,372	78,400	184,508

\* Restatement 2018 & 2017 [102-48]

Restatement 2018 & 2017

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# Penjelasan Direksi

## Board of Directors' Message [102-14]



### Nicolas D. Kanter

Presiden Direktur  
President Director

"Prioritas di 2019 adalah *Safety, People* dan *Recovery* dengan melakukan sejumlah perubahan signifikan untuk peningkatan kesehatan dan keselamatan, serta manajemen sumber daya manusia, salah satunya dengan implementasi struktur organisasi berkonsep *line of defense* untuk memperkuat manajemen risiko."

"The priorities in 2019 were *Safety, People* and *Recovery*, and significant changes were made to improve health and safety, human resource management, and implementing an organizational structure that adopts the line of defense concept to strengthen risk management."





Para pemangku kepentingan yang terhormat,

Pertama, izinkan saya menyampaikan apresiasi atas upaya Anda untuk senantiasa memberikan yang terbaik bagi PT Vale sepanjang 2019. Seluruh pencapaian Perusahaan tak akan mungkin terjadi tanpa gagasan, kerja keras, dan komitmen Anda semua. Saya, mewakili jajaran manajemen Perusahaan, mengucapkan terima kasih dari hati terdalam.

Melalui Laporan ini, kami ingin menyampaikan kinerja keberlanjutan Perusahaan sepanjang tahun 2019, dan upaya kami untuk menciptakan nilai dari setiap kegiatan operasi dan usaha yang dijalankan. Tema Laporan Keberlanjutan 2019 adalah *Improving Responsibly*. Tema ini menjelaskan kinerja keberlanjutan yang telah kami jalankan untuk terus mendorong pertumbuhan berkelanjutan Perusahaan dan beberapa inovasi di tahun ini berdasarkan komitmen Perusahaan terhadap keberlanjutan.

### Kebijakan Merespon Tantangan Keberlanjutan

PT Vale merespon penerapan nilai-nilai keberlanjutan dalam kegiatan operasi dan usahanya, sebagai bagian dari strategi utama Korporasi, yang menjadi pembeda dengan para kompetitor. PT Vale akan selalu berpegang pada praktik-praktik pertambangan berkelanjutan.

Kami berkomitmen menerapkan Kebijakan Pembangunan Berkelanjutan, sehingga kegiatan pengelolaan tambang dapat memberikan nilai tambah bagi pemangku kepentingan. Penerapan pembangunan berkelanjutan dilakukan bekerja sama dengan pemerintah, institusi publik, sektor swasta dan masyarakat luas. Melalui pembangunan berkelanjutan, PT Vale terus berkontribusi pada penguatan aspek sosial, pembangunan kompetensi ekonomi lokal, konservasi pelestarian lingkungan, serta merespon tuntutan global pada pengelolaan isu-isu lingkungan, sosial dan tata kelola (LST).

### Penerapan dan Pencapaian Kinerja Keberlanjutan

Secara keseluruhan, kinerja keberlanjutan yang dijalankan PT Vale selama tahun 2019, telah dapat mengelola setiap isu LST, sehingga Perusahaan mampu menjaga kinerja operasi dan usaha. Dalam hal kinerja keberlanjutan pada aspek ekonomi, isu paling kuat yang dibicarakan khalayak tentang PT Vale 2019 adalah soal divestasi dan *growth projects*. Titik terang kita dapatkan pasca-kunjungan Eduardo Bartolomeo dan Direktur Eksekutif Vale Base Metals Mark Travers untuk bertemu dengan Presiden Republik Indonesia Joko Widodo. Pertemuan yang dilakukan pada September

Dear stakeholders,

First, let me express my appreciation to you all for your resolute efforts to provide the best for PT Vale throughout 2019. None of the Company's achievements would have been possible without your ideas, hard work and commitment. On behalf of the Company management, I would like to say thank you from the bottom of my heart.

In this report we would like to present the Company's sustainability performance for 2019, and the efforts we undertook to create value from all our operational and business activities. The 2019 Sustainability Report theme is "Improving Responsibly". This theme describes the sustainability performance we achieved to drive the Company's sustainable growth and the innovations introduced this year based on the Company's commitment to sustainability.

### Responding to Sustainability Challenges Policy

PT Vale integrates its sustainability values into its operations and business activities, as part of its main corporate strategy, and this differentiates us from our competitors. PT Vale will always abide by sustainable mining practices.

We are committed to following the Sustainable Development Policy, so that our mining and processing activities provide added value to our stakeholders. Sustainable development is achieved by collaborating with the Government, public institutions, the private sector and the wider communities. Through this sustainable development, PT Vale continues to contribute by strengthening social aspects, developing local economic competencies, conserving the environment, and responding to the global demands on the management of the environmental, social and governance (ESG) issues.

### Sustainability Performance Application and Achievement

Overall, PT Vale's sustainability performance in 2019 involved managing each ESG issue, resulting in the Company maintaining its operational and business performance. From the economic aspect, the biggest issues discussed in 2019 is related to PT Vale's divestment and growth projects. One bright spot was the visit of Vale CEO Eduardo Bartolomeo and Vale Base Metals Executive Director Mark Travers, and their meeting with the Republic of Indonesia President Joko Widodo. The meeting was held in September 2019 and the results were very fruitful. Within one month, PT

2019 itu berbuah manis. Selang satu bulan, PT Vale—bersama Vale Canada Limited dan Sumitomo Metal Mining, Co, Ltd—menandatangani Perjanjian Pendahuluan dengan MIND ID (atau PT Inalum) untuk pengambilalihan 20% saham PT Vale. Kesepakatan tersebut merupakan langkah awal dimulainya kerja sama strategis jangka panjang antara PT Vale dan MIND ID.

Terkait proyek pengembangan di Sulawesi Tengah dan Sulawesi Tenggara, kita juga mencatatkan tonggak penting di 2019. Untuk proyek Bahodopi, kita telah mencapai kesepakatan awal dengan mitra terpilih pada kuartal keempat tahun 2019. Pemilihan mitra ini memang memakan waktu yang cukup lama karena kajian mendalam terhadap masing-masing calon mitra dan memastikan mitra yang terpilih punya visi dan misi yang selaras dengan PT Vale. Sementara untuk pembangunan Pabrik HPAL di Pomalaa, PT Vale juga telah mencapai kesepakatan atas hal-hal penting menyangkut usaha patungan dengan mitra kita, Sumitomo Metal Mining.

Pencapaian kinerja keberlanjutan berkaitan keselamatan dan kesehatan kerja (K3) menjadikan tahun 2019 tahun yang menantang. Di awal tahun, kita dikejutkan dengan peristiwa di Brumadinho yang memaksa rekan-rekan kita, serta masyarakat di sekitar area tambang bijih besi di Brazil tersebut kehilangan nyawa dan harta benda. Kejadian tersebut menjadi alarm bagi kita agar jangan sampai lengah, kenali dan kelola risiko sekecil apapun, jaga keselamatan diri dan peduli terhadap rekan-rekan di tempat kerja.

Mengutip pesan akhir tahun CEO Vale Eduardo Bartolomeo, tragedi Brumadinho mempercepat proses kita menjadi perusahaan yang lebih baik. Prioritas di 2019 adalah *Safety, People and Recovery*. Hal itu berlaku di seluruh unit bisnis Vale, termasuk PT Vale. Di sini, kita melakukan sejumlah perubahan signifikan di sisi kesehatan dan keselamatan, serta manajemen SDM. Pada tahun 2019 kita mengimplementasikan struktur organisasi yang mengadopsi konsep *line of defense* untuk memperkuat manajemen risiko. Kita juga mempromosikan *leadership on the field*, lewat praktik-praktik *gemba* oleh *leaders*.

Kita juga melakukan pembaruan pada *Golden Rules* sebagai respons terhadap kondisi terkini. Kita melibatkan keluarga karyawan dalam kampanye *Fatigue Management System*. Didukung oleh Korporasi, kita juga baru menyelesaikan HIRA (*Hazard Identification and Risk Assessment*), yang berfokus pada pengendalian-pengendalian atas potensi kejadian-kejadian besar yang disebabkan oleh *process safety* dan dapat menyebabkan *multiple fatalities* dan masalah lingkungan yang luar biasa.

Saya tegaskan sekali lagi, visi Vale adalah menjadi perusahaan sumber daya alam nomor satu di dunia. Salah satu syarat terbesar menjadi perusahaan berkelas dunia adalah beroperasi

Vale - together with Vale Canada Limited and Sumitomo Metal Mining, Co., Ltd. - signed a Heads of Agreement with MIND ID (or PT Inalum) to take over 20% of PT Vale's shares. This agreement is the first step in starting a long-term strategic partnership between PT Vale and MIND ID.

For project development in Central and Southeast Sulawesi, we recorded important milestones in 2019. For the Bahodopi project we reached an initial agreement with selected partners in the fourth quarter of 2019. This selection took quite a long time due to in-depth studies being carried out on each potential partner to ensure they had a vision and mission in harmony with PT Vale. For the HPAL Plant construction in Pomalaa, PT Vale also reached agreement on several important matters concerning joint ventures with our partner, Sumitomo Metal Mining.

For occupational health and safety (OHS), 2019 was a challenging year. At the beginning of the year, we were shocked by the incident in Brumadinho that saw our colleagues, as well as residents of the communities around the iron ore mining area in Brazil, lose their lives and property. This incident raised alarm bells for us to not let our guard down, to recognize and manage the slightest risks, and to maintain the personal safety and care of our colleagues at work.

Citing Vale's CEO Eduardo Bartolomeo's end-of-year message, the Brumadinho tragedy accelerated our intent to become a better company. The priorities for 2019 were Safety, People and Recovery, and this applies in all Vale business units, including PT Vale. Here, we made a number of significant changes on the health and safety side, as well as in HR management. In 2019 we also implemented an organizational structure that adopted the line of defense concept to strengthen risk management. We also promoted leadership on the field, with the leaders following the *gemba* practices.

In response to the current conditions, we also made updates to our Golden Rules. We involved the families of employees in our Fatigue Management System campaign. Supported by the Corporation, we completed HIRA (Hazard Identification and Risk Assessment), a system that focuses on controlling any potential major process safety events that could cause multiple fatalities and extraordinary environmental problems.

I reiterate once again, Vale's vision is to become the number one natural resource company in the world. One of the biggest requirements to become a world-class company



dengan cara yang paling aman dan stabil. Untuk mencapainya, kita perlu dukungan dari seluruh karyawan dari semua level.

Dalam hal pengelolaan lingkungan, setiap tahun PT Vale menyertakan dokumen pelaksanaan pengelolaan lingkungan pada Program Penilaian Peringkat Kinerja Perusahaan (PROPER) oleh Kementerian Lingkungan Hidup dan Kehutanan (KLHK). Tahun ini PT Vale membentuk tim khusus untuk melengkapi semua kebutuhan informasi dalam *assessment* PROPER, yang telah bekerja keras, bekerja sama, dan berkolaborasi untuk membidik predikat PROPER Hijau. Kami sangat bangga mengumumkan bahwa pada tahun 2019 kami berhasil meraih penghargaan PROPER Hijau pertama.

Kami terus berkomitmen memberikan kesejahteraan kepada masyarakat, terutama yang berada di sekitar wilayah operasi Perseroan, melalui menyelenggarakan Program Terpadu Pengembangan Masyarakat (PTPM). Pelaksanaan PTPM ditujukan untuk pengembangan dan pemberdayaan masyarakat secara berkelanjutan dan telah diselaraskan dengan rencana pembangunan Pemerintah Kabupaten Luwu Timur, bersifat jangka panjang dan memiliki peta jalan lima tahunan. Hal ini dilakukan agar kegiatan pengembangan dan pemberdayaan masyarakat yang dijalankan Perseroan tidak saling tumpang-tindih dengan program kerja pemerintah daerah.

Memasuki tahun 2019, Perseroan melanjutkan realisasi program-program sesuai Rencana Induk Pengembangan dan Pemberdayaan Masyarakat (RI PPM) Periode 2018 – 2022. RI-PPM disusun berdasar Peraturan Menteri ESDM No. 25 Tahun 2018 Tentang Pengusahaan Pertambangan Mineral dan Batubara. Penyusunan RI-PPM dilatarbelakangi hasil evaluasi pelaksanaan program PTPM 2013-2017, hasil penggalian gagasan Tim Tiga Pilar, Rencana Pengembangan Kawasan Unggulan, Konsultasi Pemangku Kepentingan, Rekomendasi Internal Audit PT Vale, semangat kemandirian dan keberlanjutan pascatambang.

PT Vale juga menerima pelbagai penghargaan berskala Nasional maupun Internasional di bidang *sustainability* seperti Sustainable Business Awards (SBA), Penghargaan Subroto, Indonesian Institute for Corporate Directorship (IICD), ASEAN Mining Awards, ASEAN Coal Awards, Global Corporate Sustainability Awards, dan The 4th ASEAN Rural Development and Poverty Eradication Leadership Award 2019.

### Strategi Pencapaian Kinerja Keberlanjutan

Kami menyadari penerapan kinerja keberlanjutan tidak bisa dilepaskan dari isu-isu LST yang menjadi perhatian berbagai pihak, baik di tataran lokal, nasional maupun global. PT Vale menyikapi hal ini dengan menerapkan pengelolaan risiko, serta pendekatan-pendekatan berdasarkan situasi dan prioritas.

is to operate in the safest and most stable way. To achieve this, we need the support of all employees at all levels.

For environmental management, every year PT Vale prepares documents for the Ministry of Environment and Forestry (KLHK) on its implementation of environmental management for the Company Performance Rating Program (PROPER). This year, PT Vale formed a special team to complete all the information required for the PROPER assessment, and this involved working hard, working together, and collaborating to achieve the Green PROPER title target. We are very proud to announce that in 2019 we achieved our first Green PROPER Award.

We continued our commitment to improve the communities' welfare, especially those around the Company's operational areas, through the Integrated Community Development Program (PTPM). PTPM is aimed at ongoing community development and empowerment, in alignment with the East Luwu Regency Government's long-term development plan and five-year road map. This is to ensure that the Company's community development and empowerment activities do not overlap with the local Government's work programs.

Entering 2019, the Company continued its 2018-2022 Master Plan for the Community Development and Empowerment (RI PPM) programs. The RI-PPM was compiled based on the 2018 Minister of Energy and Mineral Resources Regulation No. 25 concerning Concessions for Mineral and Coal Mining. The RI-PPM preparation took into account the 2013-2017 PTPM program implementation evaluation results, the Three Pillars Team brainstorming results, the Featured Area Development Plan, Stakeholder Consultations, PT Vale's Internal Audit Recommendations, the spirit of independence, and post-mining sustainability.

PT Vale received a number of national and international sustainability awards including the Sustainable Business Awards (SBA), the Subroto Awards, the Indonesian Institute for Corporate Directorship (IICD), the ASEAN Mining Awards, the ASEAN Coal Awards, the Global Corporate Sustainability Awards, and The 4th ASEAN Rural Development and Poverty Eradication Leadership Award 2019.

### Sustainability Performance Achievement Strategies

We realize that our sustainability performance cannot be separated from the ESG issues that concern many parties at the local, national and global level. PT Vale has addressed these concerns by implementing risk management, using approaches based on situations and priorities.



Pada tahun ini PT Vale memulai transformasi budaya perusahaan yang didasarkan pada empat perilaku utama, yakni obsesi terhadap keselamatan dan manajemen risiko, dialog terbuka dan transparan, pengembangan karyawan melalui pemberdayaan dengan akuntabilitas dan manajemen kinerja, serta tanggung jawab secara menyeluruh. Transformasi budaya ini penting dan perlu untuk mendukung terciptanya perusahaan hebat yang dikagumi dan disayangi oleh masyarakat dan dunia.

## 2019 Adalah Tentang Komitmen Keselamatan

*Vale Production System* atau VPS, menjadi topik yang sering kita dengar dan kita perbincangkan. VPS memperkuat budaya organisasi kita melalui pengembangan SDM, standardisasi praktik terbaik, disiplin operasional, dan kepatuhan terhadap rutinitas. Implementasi dan hasilnya sudah kita saksikan bersama. Alur produksi menjadi tercatat dan terukur.

Kita merasakan antusiasme rekan-rekan dari berbagai departemen dalam menyampaikan gagasan-gagasan mereka di Kaizen Competition. Saya memberikan *standing ovation* kepada seluruh peserta. Kontribusi yang luar biasa bagi PT Vale sekaligus wujud nyata dari *continuous improvement* dan semangat *eliminate waste!* Selain inovasi dari sisi perangkat kerja, kita juga melihat kegiatan *housekeeping* yang semakin menggema sepanjang 2019. Proyek transformasi di berbagai area kerja itu diberi *tagline*, "*We Have a Dream*" karena merupakan mimpi kolektif kita semua untuk memiliki lingkungan yang bersih, nyaman, modern, dan berkelas dunia.

Kita juga melakukan banyak hal terkait penyeteraan. Program *gender diversity and inclusion* mulai serius kita garap di 2019. Di masa depan, kita berharap semakin banyak "Kartini Tambang" yang berkarya dan sukses meniti karir di PT Vale. Program *Contractor Turnaround* juga kita lakukan demi menciptakan iklim "mitra-setara" di antara karyawan PT Vale dan karyawan perusahaan kontraktor. Tidak ada lagi perlakuan berbeda, baik dari aspek kesehatan dan keselamatan, serta fasilitas kerja.

Kita juga telah mulai membuka keran komunikasi dua arah, dengan program baru "*Open Talk*" di mana karyawan berkesempatan menyampaikan saran, pendapat, dan unek-unek langsung ke manajemen. Sebuah terobosan yang belum pernah kita lakukan sebelumnya. Semoga ke depan, dialog terbuka dan transparan antara area leaders dan karyawan *floor-level* akan berjalan semakin lancar melalui *gamba walk*, *safety meeting*, *toolbox meeting*, maupun diskusi *one-on-one*.

## Prospek Usaha dan Keberlanjutan Masa Depan

Tahun ini berhasil kita lewati dengan baik. Memasuki 2020, tantangan akan semakin besar. Arahan dari Vale untuk PT Vale lima tahun mendatang sangat jelas, yaitu mencapai

This year, PT Vale embarked on a corporate culture transformation focusing on four main behaviors, namely: obsessed with safety and risk management; open and transparent dialogue; employee development through empowerment with accountability and performance management; and responsibility for the whole.. This cultural transformation is important and is needed to support the creation of a great company that is admired and loved by society and the world.

## 2019 Commitment to Safety

The Vale Production System, or VPS, is a topic we hear and talk about often. VPS strengthens our organizational culture through human resource development, best practice standardization, operational discipline, and adherence to routines. We have witnessed its implementation and the results together. The production flow is recorded and measured.

We felt our colleagues' enthusiasm when many departments presented their ideas at the Kaizen Competition, where I gave a standing ovation to all the participants. This was an outstanding contribution by PT Vale, as well as tangible evidence of the continuous improvements and the spirit to eliminate waste! In addition to work tools' innovations, we also saw housekeeping activities that were echoed throughout 2019. The work area transformation project was given a tagline, "We Have a Dream" as it is the collective dream of all of us to create a clean, comfortable, modern and world-class environment.

We have also accomplished a great deal regarding equality. The gender diversity and inclusion program started to be taken more seriously in 2019. Moving forward, we hope that more "Kartini Tambang" will work and pursue a successful career at PT Vale. We also conducted our Contractor Turnaround Program to create a climate of "equal partners" between PT Vale employees and contractor company employees. No more different treatment, both in terms of health and safety, and work facilities.

We have also opened a two-way communication gateway through the new "Open Talk" program where employees have the opportunity to submit suggestions, opinions and ideas directly to management. A breakthrough that we have never done before. We hope that in the future, open and transparent dialogue will happen between area leaders and floor-level employees, through *gamba walks*, *safety meetings*, *toolbox meetings*, and *one-on-one* discussions..

## Business Prospects and Future Sustainability

We managed to pass through this year well, but entering 2020, we realize the challenges will be even greater. The directives from Vale for PT Vale for the next five years are



produksi Nickel 90KT di Sorowako, mengembangkan operasi di Bahodopi dan Pomalaa, melaksanakan agenda ketaatan lingkungan dan mempertahankan PROPER Hijau, membangun peta jalan menuju karbon netral dan menjalankan rencananya, melaksanakan penghijauan di luar wilayah, menjalankan program keberagaman dan inklusi serta menjalankan agenda sosial Perusahaan.

Seperti diketahui bersama, perjanjian Kontrak Karya PT Vale dengan Pemerintah RI akan berakhir pada 2025. Sebuah tantangan besar karena menyangkut keberlangsungan PT Vale, yang sudah ada di depan mata.

Pada akhir tahun 2019 ini, Pemerintah RI menyatakan akan memberlakukan kembali larangan ekspor bijih nikel mulai awal tahun depan. Sebagai perusahaan yang sejak awal berdiri 51 tahun lalu telah melakukan hilirisasi, tentu langkah ini kita sambut dengan sangat positif, apalagi kita lihat sejak pernyataan Pemerintah tersebut, harga nikel mulai naik.

Namun kita tidak boleh terlena. Komponen harga tidak dapat kita kendalikan dan tidak boleh menjadi satu-satunya harapan bagi kita untuk mencatatkan keuntungan. Nikel adalah salah satu komoditas logam rentan terhadap isu geopolitik global. Potensi koreksi harga nikel akan terus membayangi di saat tensi geopolitik kembali memanas, misalnya ketika belum ada sinyal meredanya Perang Dagang AS-China dan prediksi akan melemahnya ekonomi global.

Mempertimbangkan volatilitas harga nikel, kita harus tetap fokus pada optimalisasi kapasitas produksi, meningkatkan efisiensi, dan mengurangi biaya. Menjadi perusahaan yang efisien menjadi keharusan mengingat semakin maraknya kompetisi di bisnis nikel. Nilai-nilai Vale, terutama *prize our planet* dan *improve together* harus semakin kita gaungkan.

Sekali lagi, saya ingin menghaturkan terima kasih atas kerja sama yang baik di 2019. Mari kita sambut 2020 dengan optimisme dan daya juang menghadapi segala tantangan. Saya sangat antusias merangkul pencapaian-pencapaian penting yang telah menanti kita di tahun depan.

*Let's make it happen!*

very clear, namely achieve 90KT Nickel production in Sorowako, expand operations in Bahodopi and Pomalaa, implement an environmental compliance agenda, maintain Green PROPER, build a road map to become carbon neutral and implement it, carry out reforestation outside the region, run a diversity and inclusion program, and run the Company's social agenda.

As we all know, PT Vale's Contract of Work agreement with the Government of Indonesia will end in 2025. This presents a big challenge as it involves PT Vale's sustainability and is already in sight.

At the end of 2019, the Republic of Indonesia Government reinstated an export ban on nickel ore starting early next year. As a downstreaming Company founded 51 years ago, of course we welcome this step very positively, especially as we have seen a rise in nickel prices since the Government's decision.

However, we mustn't be complacent. The price of nickel is something we can not control, and we should not look at it as the only way for us to make a profit. Nickel is a commodity vulnerable to global geopolitical issues, and nickel prices will continue to be driven by geopolitical tensions, such as the lack of any signals for easing the US-China Trade War, and the predictions for a weakening global economy.

Considering the volatility of nickel prices, we must remain focused on optimizing our production capacity, increasing our efficiencies, and reducing costs. Becoming an efficient Company is a must given the increasing competition in the nickel business. Vale's core values especially "prize our planet" and "improve together", must be emphasized even more.

Once again, I want to thank you all for the good cooperation during 2019. Let us welcome 2020 with optimism and the power to face all the challenges. I enthusiastically look forward to embrace the important achievements waiting for us next year.

Let's make it happen!

Sorowako, April 2020

Sorowako, April 2020



**Nicolas D. Kanter**

Presiden Direktur  
President Director



# Profil Perusahaan

## Company Profile







## Visi, Misi &

## Nilai-nilai Perusahaan [102-16]

### Company Vision, Mission & Values

#### Visi Vision



Menjadi perusahaan sumber daya alam nomor satu di Indonesia yang menggunakan standar global dalam menciptakan nilai jangka panjang, melalui keunggulan kinerja dan kepedulian terhadap manusia dan alam.

To be Indonesia's number one natural resources company in creating long-term value, through excellence and passion for people and the planet, according to global standards.

#### Misi Mission



Mengubah sumber daya alam menjadi sumber kemakmuran dan pembangunan yang berkelanjutan.

To transform natural resources into prosperity and sustainable development.

#### Nilai-nilai Values



##### **Kehidupan Adalah Yang terpenting** *Life Matters Most*

Keselamatan jiwa lebih penting daripada keuntungan semata

Life is more important than results and material goods

##### **Menghargai Karyawan** *Value Our People*

Membimbing dan membuka peluang bagi perkembangan individu, memberikan penghargaan kepada seseorang tanpa memandang latar belakang mereka, mendukung keberagaman, mengakui aspirasi serta kebutuhan individu

Nurture and enable personal growth, reward accomplishments regardless of individual background, promote diversity, and recognize individual aspirations and needs

##### **Menjaga Kelestarian Bumi** *Prize Our Planet*

Komitmen terhadap perkembangan masyarakat, lingkungan dan ekonomi dalam berbagai keputusan bisnis

Commitment to social, environmental and economic development in business decisions

##### **Melakukan Hal Yang Benar** *Do What Is Right*

Mendukung terciptanya komunikasi yang berdasar pada rasa percaya, terbuka dan jelas, bertindak adil, penuh integritas dan tunduk pada aturan hukum

Promote trust-based, open and clear communication, act fairly, with integrity, and in compliance with the law

##### **Bersama-Sama Menjadi Lebih Baik** *Improve Together*

Berjuang untuk terjalannya kerjasama, peningkatan dan inovasi yang terus menerus, penegakan disiplin kerja untuk meningkatkan nilai-nilai jangka panjang

Strive for collaboration, continuous improvement and innovation, discipline in the way we work to generate long-term value

##### **Mewujudkan Tujuan** *Make It Happen*

Suka tantangan, kemampuan beradaptasi, bangga atas prestasi dan apa yang telah dilakukan dalam membentuk dunia

Thirst for challenges, ability to adapt, pride in results and how we shape the world

# Sekilas PT Vale Indonesia, Tbk

## PT Vale Indonesia, Tbk at a Glance



Nama Perusahaan [102-1]  
Company Name

**PT Vale Indonesia, Tbk**

Tahun Pendirian  
Year of Establishment

**1968**

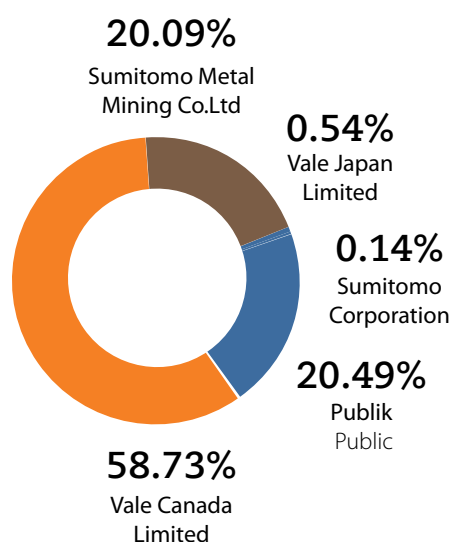
Bentuk Legal dan Kepemilikan [102-5]  
Legal Form and Ownership

**Perusahaan Terbatas Terbuka**  
Publicly Listed Limited  
Liability Company

**Terdaftar di Bursa Efek Indonesia**  
(BEI) pada 16 Mei 1990  
Listed on the Indonesia Stock  
Exchange (IDX) on May 16, 1990

**Kode Saham: INCO**  
Stock Code: INCO

Pemegang Saham  
Shareholders



Kegiatan, Merek, Produk dan Jasa [102-2]  
Activities, Brands, Products and Services

Kegiatan  
Activities

- Penambangan bijih nikel  
Nickel ore mining
- Produksi nikel dalam *matte*  
Nickel in matte production
- Penjualan nikel dalam *matte*  
Nickel in matte sales

Produk: Nikel dalam *matte*  
Product: Nickel in matte

Kantor Pusat [102-3]  
Head Office

The Energy Building 31<sup>st</sup> Floor  
Jalan Jenderal Sudirman Kav. 52-53  
Jakarta 12190 Indonesia  
Tel: +62 21 524 9000  
Fax: +62 21 524 9020  
[www.vale.com/indonesia](http://www.vale.com/indonesia)  
E-mail: [ptvicommunications@vale.com](mailto:ptvicommunications@vale.com)







## Wilayah Operasi [102-4][102-10]

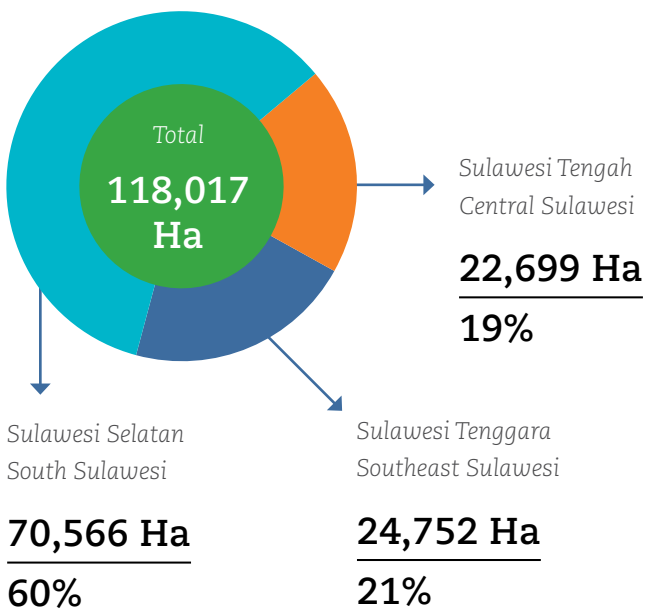
PT Vale beroperasi di Sulawesi, Indonesia. Selama tahun 2019 tidak ada perubahan signifikan terkait wilayah operasi maupun rantai pasokan. Selain itu, tidak ada penutupan atau pembukaan cabang maupun perubahan struktur kepemilikan.

## Operational Areas [102-4][102-10]

PT Vale operates in Sulawesi, Indonesia. During 2019 there were no significant changes in the area of operations or the supply chain. In addition, there is no closing or opening of branches or changes in ownership structure.

### Wilayah Operasi dan Luas Wilayah Kontrak Karya PT Vale Indonesia Tbk. [102-4]

PT Vale Indonesia Tbk. Operational Areas and Contract of Work Areas



## Pasar Terlayani [102-2][102-6]

### Markets Served

Volume Penjualan Nikel Dalam Matte 2019 [102-2][102-6] Nickel in Matte Sales Volume in 2019		
Konsumen Consumer	Volume Penjualan (Ton) Sales Volume (Tons)	Persentase (%) Percentage (%)
Vale Canada Limited	57,617	80
Sumitomo Metal Mining Co.Ltd	14,427	20
Jumlah Total	72,044	100

## Skala Usaha <sup>[102-7]</sup> Organizational Scale

Uraian Description	Satuan Unit	2019	2018	2017
Jumlah Karyawan Total Employees	Orang People	3,044	3,092	3,165
Jumlah Area Operasi Total Operating Areas	Area Area	1	1	1
Pendapatan Revenues		782.01	776.90	629.33
Total Kapitalisasi Total Capitalization	Total Kewajiban Total Liabilities	281.00	318.73	365.19
	Total Ekuitas Total Equity	1,941.69	1,883.73	1,819.37
Total Aset Total Assets	Juta USD Million USD	2,222.69	2,202.45	2,184.56
Jumlah Laba Bersih Total Net Profit		57.40	60.50	(15.27)
Penjualan Produk Nikel dalam <i>Matte</i> Nickel in <i>Matte</i> Product Sales	Ton	72,044	75,631	77,643
Cadangan Bijih Terbukti Proven Ore Reserves	Juta Ton (DKP) Million Tons (DKP)	66.2	101.8	82.7
Cadangan Bijih Terkira Probable Ore Reserves		41.1	14.7	12.4



### Profil Pekerja

Sebagian besar pekerja PT Vale merupakan penduduk lokal, yakni warga Sorowako dan sekitar. Selain itu ada pekerja dari daerah lain di seluruh Indonesia dan pekerja asing. Jumlah seluruh karyawan PT Vale hingga akhir tahun 2019 ada 3.044 orang, terdiri dari 3.023 karyawan tetap dan 21 karyawan kontrak. Seluruh karyawan merupakan pekerja penuh waktu, tidak ada pekerja paruh waktu.

Perusahaan tidak mempekerjakan pekerja anak maupun tenaga kerja paksa. Tidak ada praktik-praktik diskriminasi terhadap karyawan sesuai Human Rights Policy No. POL-0005-G, namun kami belum menyertakan informasi untuk praktik hak asasi manusia (HAM) terkait pekerja dari pemasok/kontraktor.

Sebanyak 3.036 karyawan atau 99,74% merupakan warga negara Indonesia dan 8 karyawan atau 0,26% merupakan warga negara asing. Sebanyak 2.669 orang atau 87,68% dari karyawan PT Vale merupakan warga Sorowako dan daerah lain di Kabupaten Luwu Timur, sementara 375 pekerja lain atau 12,32% berasal dari berbagai daerah di Indonesia. Sebagian dari mereka berhasil menduduki jabatan senior manajer, sejalan kebijakan Perseroan yang memberikan kesempatan kesetaraan kepada setiap karyawan untuk mengembangkan karir. <sup>[102-8]</sup>

### Employee Profile

Most of PT Vale's employees are residents from Sorowako and surrounding areas. In addition, there are workers from other regions in Indonesia and foreign workers. The total number of PT Vale's employees at the end of 2019 was 3,044, consisting of 3,023 permanent employees and 21 contract employees. All employees are full-time workers, and there are no part-time workers.

The Company does not employ child labor or forced labor. There are no discriminatory practices against employees in line with Human Rights Policy No. POL-0005-G, however, we have not included information for human rights practices related to employees of suppliers/contractors.

A total of 3,036 or 99.74% of the employees are Indonesian citizens, with 8 employees or 0.26% foreign nationals. 2,669 people or 87.68% of PT Vale's employees are residents of Sorowako and other areas in East Luwu Regency, while 375 workers or 12.32% come from other regions in Indonesia. Some have succeeded in occupying senior manager positions, in line with the Company policy to provide equal opportunities for all employees to develop their careers. <sup>[102-8]</sup>





Seluruh (100%) karyawan PT Vale dilindungi perjanjian kerja bersama (PKB), yang ditandatangani bersama serikat pekerja sebagai perwakilan karyawan dan manajemen. PKB yang digunakan saat ini berlaku untuk periode 2018 – 2020. [102-41]

All (100%) of PT Vale's employees are protected by a collective labor agreements (CLA), signed between the union, in its role representing employees, and management. The CLA used today is valid for the 2018-2020 period. [102-41]



#### Jumlah Karyawan Berdasarkan Status Kepegawaian dan Gender

Number of Employees Based on Work Location and Gender

Status Kepegawaian Employment Status	2019		2018		2017	
	Pria Male	Wanita Female	Pria Male	Wanita Female	Pria Male	Wanita Female
Karyawan Tetap Permanent Employees	2,780	243	2,842	243	2,891	257
Karyawan Kontrak Contract Employees	18	3	7	0	14	3
Jumlah Total	2,798	246	2,849	243	2,905	260
	3,044		3,092		3,165	

#### Jumlah Karyawan Berdasarkan Kewarganegaraan

Number of Employees Based on Nationality

Tahun Year	Jumlah Karyawan Number of Employees	WNI Indonesian		WNA Foreign	
		Jumlah Total	%	Jumlah Total	%
2019	3,044	3,036	99.74	8	0.26
2018	3,092	3,087	99.84	5	0.16
2017	3,165	3,158	99.78	7	0.23

### Jumlah Karyawan Berdasarkan Asal Daerah

Number of Employees Based on Point of Hire

Asal Daerah Point of Hire	2019		2018		2017	
	Pria Male	Wanita Female	Pria Male	Wanita Female	Pria Male	Wanita Female
Sulawesi Tengah Central Sulawesi	0	0	0	0	0	0
Sulawesi Tenggara Southeast Sulawesi	1	0	1	0	1	0
Sulawesi Selatan South Sulawesi	2,601	226	2,649	225	2,690	238
Luar Sulawesi Outside of Sulawesi	196	20	199	18	214	22
<b>Jumlah Total</b>	<b>2,798</b>	<b>246</b>	<b>2,849</b>	<b>243</b>	<b>2,905</b>	<b>260</b>
	3,044		3,092		3,165	

### Jumlah Karyawan Berdasarkan Lokasi Penempatan Kerja dan Gender

Number of Employees Based on Work Location and Gender

Lokasi Kerja Work Location	2019		2018		2017	
	Pria Male	Wanita Female	Pria Male	Wanita Female	Pria Male	Wanita Female
Sulawesi Tengah Central Sulawesi	0	0	0	0	0	0
Sulawesi Tenggara Southeast Sulawesi	0	0	0	0	1	0
Sulawesi Selatan South Sulawesi	2,763	230	2,820	226	2,690	238
Luar Sulawesi Outside Sulawesi	35	16	29	17	214	22
<b>Jumlah Total</b>	<b>2,798</b>	<b>246</b>	<b>2,849</b>	<b>243</b>	<b>2,905</b>	<b>260</b>
	3,044		3,092		3,165	

### Jumlah Karyawan Berdasarkan Jabatan dan Gender

Number of Employees Based on Position and Gender

Jabatan Position	2019		2018		2017	
	Pria Male	Wanita Female	Pria Male	Wanita Female	Pria Male	Wanita Female
Direktur Directors	5	1	2	1	3	1
Manajer Senior Senior Manager	10	0	7	0	8	1
Manajer Madya Middle Manager	51	4	48	3	44	2
Penyelia Supervisor	109	11	117	11	110	8
Spesialis Specialist	202	39	205	31	223	48
Teknisi Technician	2,421	191	2,470	197	2,517	200
<b>Jumlah Total</b>	<b>2,798</b>	<b>246</b>	<b>2,849</b>	<b>243</b>	<b>2,905</b>	<b>260</b>
	3,044		3,092		3,165	





### Jumlah Karyawan Berdasarkan Tingkat Pendidikan dan Gender

Number of Employees Based on Education Level and Gender

Tingkat Pendidikan Education Level	2019		2018		2017	
	Pria Male	Wanita Female	Pria Male	Wanita Female	Pria Male	Wanita Female
Doktor (S3) PhD	1	0	1	0	0	0
Pascasarjana (S2) Master Degree	48	10	45	7	48	10
Sarjana (S1) Bachelor Degree	559	110	563	105	576	108
Diploma 3 D3 Diploma	270	69	282	72	285	78
Diploma 2 D2 Diploma	25	1	25	1	25	1
Diploma 1 D1 Diploma	2	3	2	3	2	3
SLTA / Sederajat Senior High School	1,856	53	1,895	55	1,929	59
SLTP / Sederajat Junior High School	28	0	29	0	30	0
SD Elementary School	1	0	2	0	3	0
Ekspatriat Expatriate	8	0	5	0	7	1
Jumlah Total	2,798	246	2,849	243	2,905	260
	3,044		3,092		3,165	

### Jumlah Karyawan Berdasarkan Kelompok Usia dan Gender

Number of Employees Based on Age Group and Gender

Kelompok Usia Age Group	2019		2018		2017	
	Pria Male	Wanita Female	Pria Male	Wanita Female	Pria Male	Wanita Female
>50	401	13	313	10	249	13
30 - 50	2,294	219	2,399	224	2,469	230
<30	103	14	137	9	187	17
Jumlah Total	2,798	246	2,849	243	2,905	260
	3,044		3,092		3,165	





## Keanekaragaman Gender dan Inklusi

PT Vale berkomitmen untuk menjadi perusahaan yang menghargai keanekaragaman dan inklusi. Tidak hanya kesetaraan gender, PT Vale juga memperluas kesempatan kerja bagi penyandang disabilitas. Pada tahun 2019 terdapat lima karyawan penyandang disabilitas, yaitu empat pria dan satu wanita.

Perseroan telah merumuskan target aspirasi jumlah perempuan dan pekerja penyandang disabilitas dari jumlah total pekerja saat ini meningkat 100% dari jumlah pekerja perempuan dan 500% untuk pekerja disabilitas dalam 5 hingga 10 tahun ke depan.

## Rantai Pasok <sup>[102-9]</sup>

Sebagai bentuk kepatuhan terhadap 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, PT Vale berkomitmen meningkatkan penggunaan produk dalam negeri melalui pengaturan tingkat komponen dalam negeri (TKDN). Strategi yang dilakukan adalah dengan pelibatan pemasok lokal serta pemanfaatan komponen lokal melalui program Promote National Interest (PNI) dan program Local Business Initiative (LBI).

Realisasi angka TKDN pada tahun 2019 mencapai 70,98%, lebih tinggi dari angka TKDN tahun 2018 sebesar 68,17%. Kenaikan ini dikarenakan pengalihan penggunaan bahan bakar cair yang sebelumnya menggunakan HSFO Impor kini menggunakan MFO bersumber dari pembelian nasional mulai trimeseter kedua 2019.

Hingga akhir tahun 2019 ada 295 perusahaan lokal yang terlibat dalam pengadaan dan menjadi bagian dari rantai pasok PT Vale. Total nilai kontrak pengadaan dengan pemasok lokal pada tahun 2019 mencapai AS\$61,3 juta atau 11% dari total nilai kontrak pengadaan barang dan jasa tahun 2019.

Proses pengadaan dilakukan melalui penerapan *e-procurement*, yang berbasis pada teknologi informasi (TI). Penerapan *e-procurement* juga 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).

## Gender Diversity and Inclusion

PT Vale is committed to being a company that values diversity and inclusion. In addition to gender equality, PT Vale has expanded employment opportunities for people with disabilities. In 2019 there were five employees with disabilities, four men and one woman.

The Company has formulated targets for the number of females and employees with disabilities in the total workforce, to increase the number of female workers by 100%, and employees with disabilities by 500% over the next 5 to 10 years.

## Supply Chain <sup>[102-9]</sup>

In compliance with the 2009 Law No. 4 concerning Mineral and Coal Mining, and Minister of Energy and Mineral Resources 2012 Regulation No.24 concerning the Implementation of Mineral and Coal Mining Business Services, PT Vale is committed to increasing the use of domestic products following the internal component levels (TKDN) regulation. The strategy taken is to involve local suppliers and to use local components through the Promote National Interest (PNI) program and the Local Business Initiative (LBI) program.

The TKDN realization in 2019 reached 70.98%, higher than the 68.17% in 2018. This was due to a change in liquid fuel purchases from imported HSFO to domestic MFO starting in the second trimester of 2019.

By the end of 2019, there were 295 local companies involved in procurement that had become part of PT Vale's supply chain. Total procurement contracts with local suppliers in 2019 reached US\$61.3 million or 11% of the total goods and services procurement contracts in 2019.

The procurement process uses an information technology-based e-procurement application, and forms part of the supply chain governance transparency. It covers all tender stages, starting from vendor registration, pre-qualifications, 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).





## Proporsi Pelibatan Pemasok Supplier Engagement Proportion

Uraian Description	2019		2018		2017	
	Jumlah Total	%	Jumlah Total	%	Jumlah Total	%
Pemasok Lokal Local Suppliers	295	31	295	38	295	32
Pemasok Nasional National Suppliers	463	49	409	52	448	48
Pemasok Internasional International Suppliers	187	20	80	10	189	20
<b>Jumlah Total</b>	<b>945</b>	<b>100</b>	<b>784</b>	<b>100</b>	<b>932</b>	<b>100</b>

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

Uraian Description	2019		2018		2017	
	Jumlah Total	%	Jumlah Total	%	Jumlah Total	%
Pemasok Lokal Local Suppliers	61,339,562	11	59,865,031	12	61,902,889	13
Pemasok Nasional National Suppliers	398,597,328	68	268,965,913	56	264,632,924	55
Pemasok Internasional International Suppliers	125,028,445	21	153,548,885	32	154,732,319	32
<b>Jumlah Total</b>	<b>584,965,335</b>	<b>100</b>	<b>482,379,830</b>	<b>100</b>	<b>481,258,133</b>	<b>100</b>

Secara berkala, Perusahaan melakukan evaluasi terhadap para pemasok. Tujuannya untuk memastikan para pemasok telah memenuhi standar dan kriteria pengelolaan lingkungan yang ditetapkan PT Vale. Pada tahun 2019 ada 379 pemasok yang menjalani proses evaluasi, terdiri atas 158 pemasok lokal, 201 pemasok nasional, dan 20 pemasok internasional. Hasil evaluasi menunjukkan sebanyak 100% pemasok lokal telah memenuhi standar dan kriteria pengelolaan lingkungan yang ditetapkan PT Vale. [308-1]

The Company periodically evaluates its suppliers to ensure that they meet the environmental management standards and criteria set by PT Vale. In 2019, 379 suppliers were evaluated, consisting of 158 local suppliers, 201 national suppliers, and 20 international suppliers. The evaluation results showed that 100% of local suppliers met the environmental management standards and criteria set by PT Vale. [308-1]

## Pengawasan dan Evaluasi Pemasok Baru Tahun 2019 New Suppliers Monitoring and Evaluation in 2019

Uraian Description	Jumlah Pemasok Dievaluasi Number of Suppliers Evaluated	Jumlah Pemasok Lolos Evaluasi Number of Suppliers Passed	Persentase Percentage (%)
Kinerja Dampak Terhadap Lingkungan   Environmental Impact			
Pemasok Lokal Local Suppliers	158	158	100
Pemasok Nasional National Suppliers	201	69	34.3
Pemasok Internasional International Suppliers	20	1	5
<b>Jumlah Total</b>	<b>379</b>	<b>228</b>	<b>60.5</b>

## Prinsip-Prinsip Kehati-Hatian [102-11]

Kegiatan operasional pertambangan bijih nikel (*ore*) dan produksi nikel dalam *matte*, dilakukan dengan tetap memperhatikan prinsip kehati-hatian. Setiap pelaksanaan kegiatan operasional Perusahaan selalu didahului studi dan pengesahan dokumen Analisis Mengenai Dampak Lingkungan (AMDAL).

Terkait dengan rencana pembangunan pabrik HPAL dan kegiatan operasi pertambangan di Pomalaa, Kabupaten Kolaka, Sulawesi Tenggara, penyusunan dokumen AMDAL pada akhir Desember 2019 telah sampai pada tahapan persetujuan akhir.

Prinsip kehati-hatian dalam pengelolaan lingkungan juga diwujudkan dengan penerapan standar pengelolaan lingkungan: [102-12]

- Standar Manajemen Keselamatan Pertambangan (SMKP) untuk pengelolaan Keselamatan dan Kesehatan Kerja (K3).
- Sertifikasi ISO 14001:2015 Environment Management System (EMS).
- Informasi lain tentang inisiatif eksternal dan sertifikasi yang dimiliki PT Vale hingga akhir tahun 2019 disampaikan dalam Laporan Tahunan 2019 PT Vale Indonesia Tbk.

PT Vale memiliki manajemen risiko dalam menerapkan prinsip kehati-hatian. Informasi lengkap terkait manajemen risiko terdapat pada Laporan Tahunan 2019.

## Prudential Principles [102-11]

The operational activities for nickel ore mining and nickel in *matte* production put into consideration the prudential principles. All Company operational actions are preceded by studies and ratification through the Environmental Impact Analysis (AMDAL) document.

For the smelter construction and mining operations plans in Pomalaa, Kolaka Regency, Southeast Sulawesi, at the end of December 2019 the AMDAL document preparation had entered the final approval stage.

The environmental management prudential principle is manifested by applying environmental management standards: [102-12]

- Mining Safety Management Standards (SMKP) for management of Occupational Safety and Health (OHS).
- ISO 14001: 2015 Environment Management System (EMS) Certification.
- Other information regarding PT Vale's external initiatives and certification at the end of 2019 can be found in the PT Vale Indonesia Tbk 2019 Annual Report.

PT Vale's risk management is applied using the prudential principle. Detailed information regarding risk management can be found in the 2019 Annual Report.

## Keanggotaan Asosiasi

### Association Membership [102-13]

Asosiasi   Association	Peran   Role	Lingkup   Scope
<b>Indonesian Mining Association (IMA)</b>	Presiden Direktur (Nicolas D. Kanter sebagai Wakil Ketua IMA) President Director (Nicolas D. Kanter as Vice Chairman of IMA)	Nasional National
<b>Asosiasi Pengusaha Indonesia (APINDO)</b> The Employers' Association of Indonesia (APINDO)	Anggota Luar Biasa Extraordinary Member	Nasional National
<b>Perhimpunan Ahli Pertambangan Indonesia (PERHAPI)</b> Association of Indonesian Mining Professionals (PERHAPI)	Anggota Member	Nasional National
<b>Kamar Dagang dan Industri (KADIN)</b> Chamber of Commerce and Industry (KADIN)	Anggota Member	Nasional National
<b>Stock Issuer Association</b>	Anggota Member	Nasional National
<b>Indonesian Corporate Council Association</b>	Erlangga Gaffar, sebagai Wakil Ketua Erlangga Gaffar as Vice President of ICCA	Nasional National
<b>Indonesia Business Council on Sustainable Development (IBCSD)</b>	Wakil Presiden Direktur Febriany Eddy, sebagai Wakil Ketua IBCSD IBCSD - Febriany Eddy as Vice President Steering Committee Anggota pada tingkat Member of Board Member of Board	Internasional International
<b>Nickel Institute</b>	Anggota Member	Internasional International
<b>International Commission on Large Dams (ICOLD)</b>	Anggota Member	Internasional International
<b>Indonesia Corporate Secretary Association (ICSA)</b>	Anggota Member	Nasional National
<b>Indonesia Business Coalition for Women Empowerment (IBCWE)</b>	Anggota Member	Nasional National





## Apresiasi dan Penghargaan Appreciation and Awards

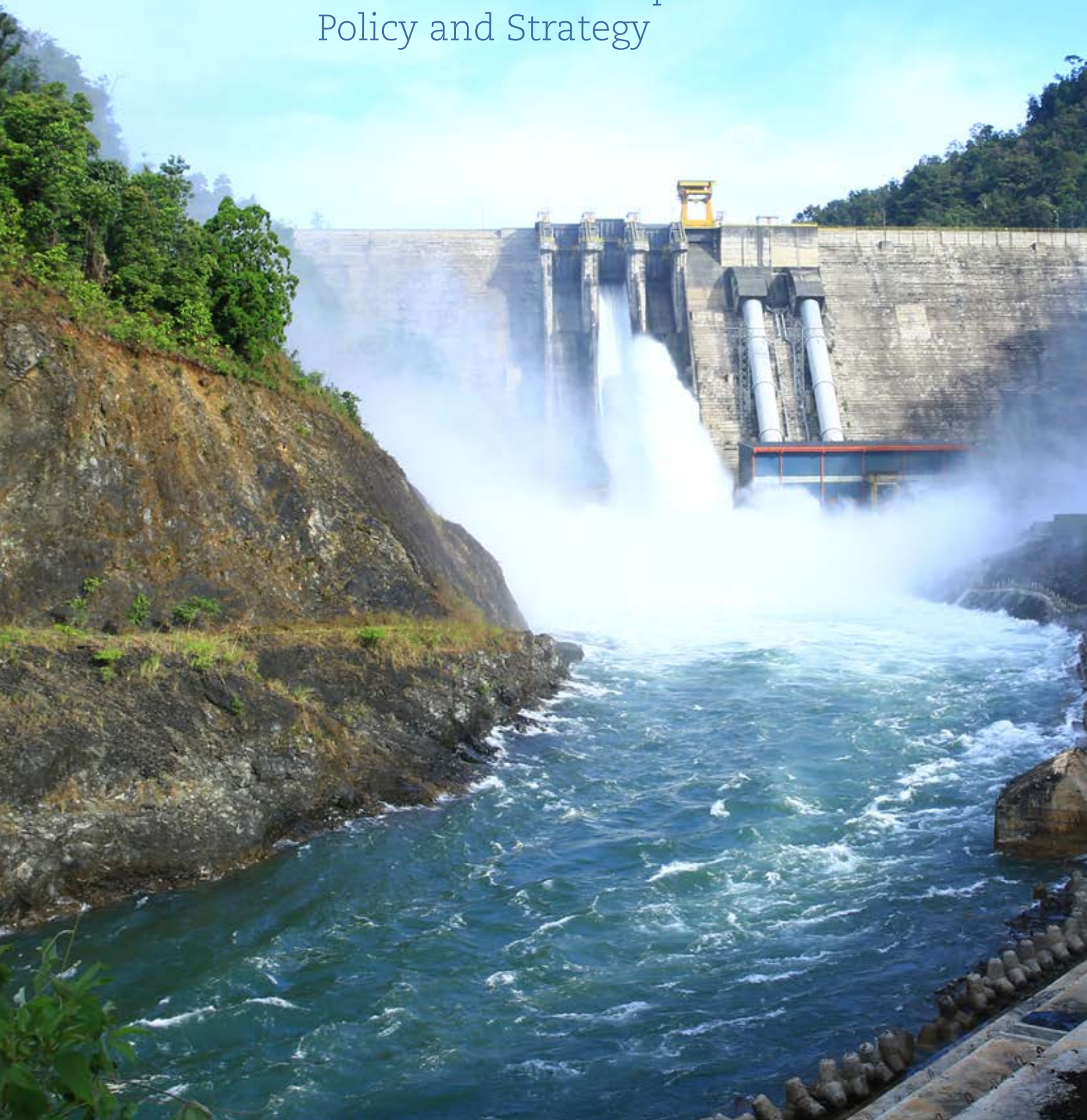
Apresiasi dan Penghargaan yang Diterima Appreciation and Awards Received		
Nama Penghargaan Awards	Tanggal Diterima Date Awarded	Lembaga Pemberi Presenter
<p>Sustainable Business Awards</p> <ul style="list-style-type: none"> <li>• Overall winner</li> <li>• Terbaik di Kategori Business Responsibility and Ethics</li> <li>• Terbaik di Kategori Workforce</li> </ul> <p>Sustainable Business Awards</p> <ul style="list-style-type: none"> <li>• Overall winner</li> <li>• Best in Business Responsibility and Ethics Category</li> <li>• Best in the Workforce Category.</li> </ul>	<p>7 Januari January 7</p>	<p>Global Initiatives Business Council for Sustainable Development, PricewaterhouseCooper dan Kementerian Perencanaan Pembangunan Nasional/Bappenas</p> <p>Global Initiatives Business Council for Sustainable Development, PricewaterhouseCooper and the Ministry of National Development Planning/Bappenas</p>
<p>Penghargaan Program Pencegahan dan Penanggulangan (P2) HIV/AIDS di Tempat Kerja, Kategori Platinum</p> <p>HIV/AIDS Prevention and Control Program Award (P2) at Work, Platinum Category</p>	<p>22 April April 22</p>	<p>Kementerian Ketenagakerjaan Ministry of Manpower</p>
<p>Gold Award Annual Report - 2019 Australasian Reporting Award</p>	<p>19 Juni June 19</p>	<p>Australasian Reporting Awards (ARA) Australasian Reporting Awards (ARA)</p>
<p>ASEAN Coal Award. Peringkat pertama untuk kategori Industri Skala Menengah</p> <p>ASEAN Coal Award. First place in the Medium Scale Industry category</p>	<p>2 September September 2</p>	<p>ASEAN Energy Business Forum</p>
<p>Penghargaan Subroto 2019 untuk Kategori Perlindungan Lingkungan Pertambangan Kelompok Kontrak Karya dan Izin Usaha Pertambangan Khusus.</p> <p>Subroto Award 2019 in the category of Environmental Protection Mining Group Contract of Work and Special Mining Business Permit</p>	<p>27 September September 27</p>	<p>Kementerian Energi dan Sumber Daya Mineral Ministry of Energy and Mineral Resources</p>
<p>Penghargaan Emiten Terbaik dalam Pelaksanaan Good Corporate Governance, Kategori "Most Improved" Kelas Emiten Kapitalisasi Besar (Big Cap)</p> <p>Best Issuer Award for the Implementation of Good Corporate Governance, in the "Most Improved" category of Big Cap Issuers</p>	<p>14 Oktober October 14</p>	<p>Institute for Corporate Directorship</p>
<p>Peringkat 3 dalam Indonesia Green Company Award</p> <p>3rd place in the Indonesia Green Company Award</p>	<p>22 Oktober October 22</p>	<p>Majalah SWA &amp; Kehati SWA &amp; Kehati Magazine</p>
<p>ASEAN Leadership Award on Rural Development and Poverty Eradication. Kategori Sektor Swasta</p> <p>ASEAN Leadership Award on Rural Development and Poverty Eradication. Private Sector Category</p>	<p>8 November November 8</p>	<p>ASEAN</p>
<p>Platinum Asia Sustainability Reporting Rating</p>	<p>23 November November 23</p>	<p>National Center for Sustainability Reporting National Center for Sustainability Reporting</p>
<p>Global Corporate Sustainability Awards (GCSA) 2019 kategori Sustainability Reporting</p> <p>Global Corporate Sustainability Awards (GCSA) 2019 in the Sustainability Reporting category</p>	<p>28 November November 28</p>	<p>Taiwan Institute for Sustainable Energy Taiwan Institute for Sustainable Energy</p>
<p>Indonesian Mining Award, Kategori Perusahaan dengan Pengelolaan Lingkungan Terbaik-Perusahaan Mineral</p> <p>Indonesian Mining Award, in the Company with the Best Environmental Management-Mineral Company Category</p>	<p>28 November November 28</p>	<p>Indonesia Mining Association Indonesia Mining Association</p>
<p>ASEAN Mineral Award (AMA) 2019, Runner Up kategori Metallic Mineral Processing</p> <p>ASEAN Mineral Award (AMA) 2019, Runner Up in the Metallic Mineral Processing Category</p>	<p>13 Desember December 13</p>	<p>ASEAN ASEAN</p>
<p>Peringkat Hijau Program Penilaian Peringkat Kinerja Perusahaan (PROPER) 2018-2019</p> <p>Green Rating Company Performance Rating Program (PROPER) 2018-2019</p>	<p>17 Desember December 17</p>	<p>Kementerian Lingkungan Hidup dan Kehutanan Ministry of Environment and Forestry</p>





# Kebijakan dan Strategi Berkelanjutan

## Sustainable Development Policy and Strategy







PT Vale berkomitmen mendukung pencapaian pembangunan berkelanjutan untuk terus berkontribusi pada penguatan aspek sosial, pembangunan kompetensi ekonomi lokal, dan konservasi pelestarian lingkungan.

Pada tahun 2019, PT Vale memulai transformasi budaya perusahaan yang didasarkan pada empat perilaku utama, yakni obsesi terhadap keselamatan dan manajemen risiko, dialog terbuka dan transparan, pengembangan karyawan melalui pemberdayaan dengan akuntabilitas dan manajemen kinerja, serta tanggung jawab secara menyeluruh.

PT Vale juga memiliki budaya keberlanjutan, salah satu prioritas utama perusahaan adalah mengedepankan keberlanjutan sebagai faktor pembeda utama, di antaranya melaksanakan agenda ketaatan lingkungan dan mempertahankan PROPER Hijau, membangun peta jalan menuju karbon netral dan menjalankan rencananya, melaksanakan penghijauan di luar wilayah, menjalankan program keberagaman dan inklusi serta menjalankan agenda sosial Perusahaan.

PT Vale is committed to supporting sustainable development, and continues to contribute towards the strengthening of social aspects, developing local economic competencies, and environmental conservation.

In 2019, PT Vale started transforming its corporate culture to incorporate four main behaviors: be obsessed with safety and risk management; create open and transparent dialogue; develop people through empowerment with accountability and performance management; and take ownership for the whole.

PT Vale also has a sustainability culture, one of the company's top priorities to differentiate itself is to promote sustainability. This includes implementing an environmental compliance agenda and maintaining Green PROPER, building a road map to become carbon neutral and carrying out the plan, reforesting areas outside the region, running diversity and inclusion programs, and following the Company's social agenda.

## Komitmen Vale Global Tahun 2030 2030 Commitments from Vale Global



### PERUBAHAN IKLIM | CLIMATE CHANGE

Mengurangi gas rumah kaca emisi selaras dengan Perjanjian Paris dan menjadi karbon netral pada tahun 2050.

Target Baru  
New Target

Reduce greenhouse gas emissions aligned with the Paris Agreement and be carbon neutral by 2050.



### ENERGI | ENERGY

100% menghasilkan sendiri energi bersih secara global

Target Baru  
New Target

100% self-generation of clean energy globally



### AIR | WATER

Mengurangi pengumpulan air baru sebesar 10%

Reduce new water collection by 10%



### HUTAN | FOREST

Memulihkan dan melindungi 500.000 ha lahan kritis di luar batas.

Target Baru  
New Target

Recover and protect 500.000 ha of degraded land beyond our boundaries



### KONTRIBUSI SOSIAL EKONOMI SOCIOECONOMIC CONTRIBUTION

Perawatan kesehatan, pendidikan, dan pendapatan.

Health care, education and income generation



### CELAH LST | ESG GAPS

Menghilangkan celah LST utama dalam kaitannya dengan praktik terbaik

Target Baru  
New Target

Eliminate main ESG gaps in relation to best practices

MENUJU TRANSISI KE PENAMBANGAN KARBON NETRAL  
LEAD THE TRANSITION TO CARBON NEUTRAL MINING

## Strategi Utama Keberlanjutan Tahun 2020 Sustainability Strategic Priorities 2020

Prioritas PT Vale dalam lima tahun kedepan adalah:

PT Vale priorities over the next five years are as follows:



### Mencapai produksi 90KT di Sorowako

Reaching 90KT production in Sorowako Block



### Mengembangkan operasi di Bahodopi dan Pomalaa

Developing operations in Bahodopi and Pomalaa



### Melaksanakan agenda ketaatan lingkungan dan mempertahankan PROPER Hijau

Deliver environment compliance agenda to maintain Green PROPER



### Membangun peta jalan menuju karbon netral dan menjalankan rencananya

Define roadmap towards carbon neutral and execute the plan



### Melaksanakan penghijauan di luar wilayah

Reforestation beyond boundaries



### Menjalankan program keberagaman dan inklusi

Carry out diversity and inclusion program



### Menjalankan agenda sosial Perusahaan

Continuing our social agenda

## Strategi Keberlanjutan Sustainability Strategy

"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 teritorial  
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





## Kebijakan Pembangunan Berkelanjutan [102-16] Sustainable Development Policies



**#1** Mencapai zero harm, pembelajaran organisasi serta mempromosikan kepedulian tulus dan aktif di dalam dan di luar Vale;

To achieve zero harm, generating organizational learning and promoting active genuine care inside and outside Vale;

**#2** Memenuhi persyaratan hukum dan terus meningkatkan proses dan produk kami, mencari peningkatan efisiensi dalam penggunaan sumber daya alam dan layanan ekosistem;

To meet legal requirements and continuously improve our processes and products, seeking increased efficiency in the use of natural resources and ecosystem services;

**#3** Mengelola risiko dan dampak, mengadopsi langkah-langkah eliminasi, mitigasi, kompensasi dan pemantauan;

To manage risks and impacts, adopting elimination, mitigation, compensation and monitoring measures;

**#4** Mempromosikan lingkungan kerja yang sehat, aman dan penuh hormat;

To promote a healthy, safe and respectful working environment;

**#5** Berkontribusi secara positif pada evolusi kinerja karyawan dan penyedia layanan kami;

To positively contribute to the evolution of our employees' and service providers' performance;

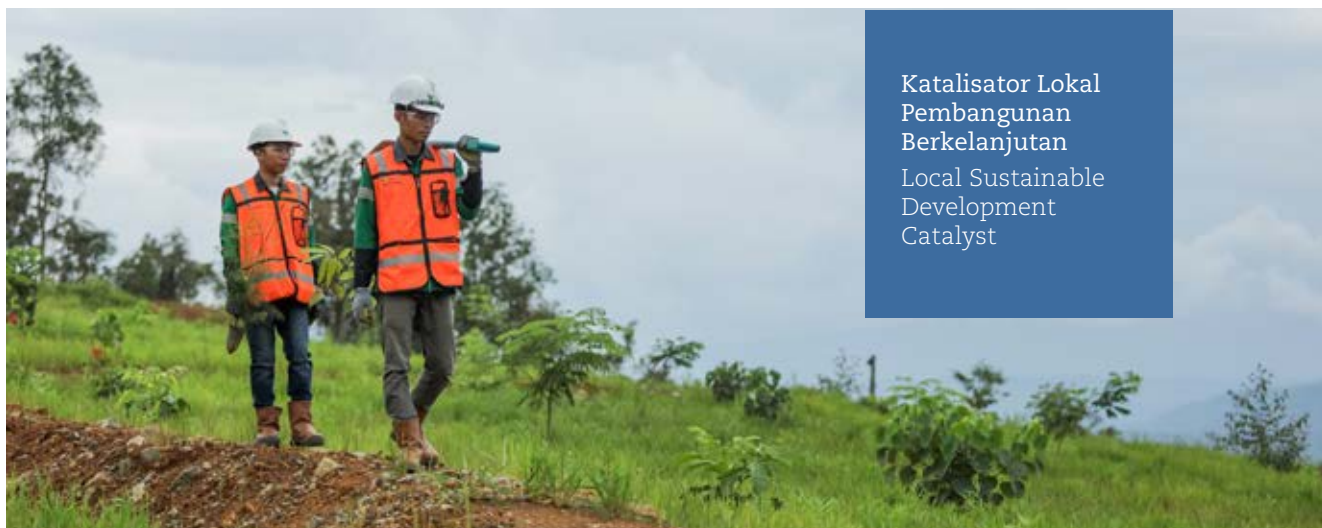
**#6** Mengejar inovasi teknologi melalui penelitian dan pengembangan teknologi baru, dan

To pursue technological innovation through research and development of new technologies, and

**#7** Bekerja dengan tanggung jawab, etika dan transparansi, terlibat dengan pemangku kepentingan dan memenuhi komitmen kami, serta memperoleh lisensi untuk beroperasi.

To work with responsibility, ethics and transparency, engaging with our stakeholders and to fulfill our commitments and obtain licenses to operate.





Katalisator Lokal  
Pembangunan  
Berkelanjutan  
Local Sustainable  
Development  
Catalyst

**#1** Mendukung pengembangan dan perekrutan tenaga kerja dan pemasok lokal;

To support the development and hiring of local workforce and suppliers;

**#2** Memahami dan memantau wilayah operasional perusahaan melalui analisa sosial dan lingkungan;

To understand and monitor the regions where the company operates through social and environmental diagnosis;

**#3** Mengutamakan tindakan manajemen risiko dan dampak dalam perencanaan pengeluaran sosial dan lingkungan;

To prioritize risk and impact management actions in the planning of socio-environmental expenditures;

**#4** Menghindari pendanaan untuk kegiatan yang merupakan bagian dari kewajiban pemerintah, berdasarkan hukum dan peraturan yang berlaku;

To avoid government funding activities, based on prevailing laws and regulations;

**#5** Mengembangkan program/proyek yang berkaitan dengan kebutuhan sosial, dengan visi pembangunan ekonomi jangka panjang, menghindari investasi sosial reaktif;

To develop programs/projects related to social needs, with a long-term economic development vision, avoiding reactive social investments;

**#6** Menghormati aspek budaya wilayah, memberikan prioritas kepada masyarakat dalam situasi rentan dan yang dipengaruhi secara langsung oleh operasi dan proyek kami, selalu mempertimbangkan publik yang ada kebijakan;

To respect the cultural aspects of the territories, giving priority to communities in vulnerable situations and those directly impacted by our operations and projects, always taking into account the existing public policies;

**#7** Dalam kasus masyarakat adat dan komunitas tradisional berada di wilayah pengaruh kegiatan perusahaan, undang-undang khusus harus dipastikan untuk dipatuhi, mempromosikan keterlibatan, konsultasi bebas, didahulukan dan diinformasikan serta evaluasi risiko dan dampak, untuk berkontribusi pada promosi terkait pengembangan etnis orang-orang dan komunitas-komunitas ini;

In cases where indigenous people and traditional communities are situated in the area of influence of the company's activities, specific legislation should be checked and followed, promoting engagement, free, prior and informed consultation and risk and impact evaluation, in order to contribute to the promotion of the ethno-development of these people and communities;

**#8** Fokus pada investasi sosial lingkungan dan tindakan individu dengan masyarakat dengan tema berikut: perawatan kesehatan dasar, pendidikan dasar, penciptaan lapangan kerja dan pendapatan, perlindungan sosial,

ilmu pengetahuan dan teknologi, serta konservasi lingkungan, secara konsisten selaras dengan kebijakan publik yang ada;

To focus on socio-environmental investments and individual actions with communities along the following themes: basic health care, basic education, job and income generation, social protection, science and technology and environmental conservation, consistently aligned with the existing public policy;

**#9** Bekerja di wilayah dengan budaya yang menghargai daerah Vale berada dan mempromosikan penyebaran dan pertukaran budaya, secara konsisten selaras dengan pedoman yang ditetapkan oleh perusahaan pada tema ini, dan

To work in the area of culture with the aim of valuing the regions where Vale is present and to promote cultural dissemination and exchange, consistently aligned with the guidelines established on this theme by the company, and

**#10** Sedapat mungkin membangun kemitraan lintas sektoral dengan fokus pada kontribusi pada pembangunan rencana pengelolaan wilayah perkotaan dan pengembangan panggilan ekonomi baru yang mempromosikan keberlanjutan kawasan dalam jangka panjang.

To establish, wherever possible, cross-sectorial partnerships with a focus on contributing to the construction of urban territory management plans and to the development of new economic vocations that promote the sustainability of regions in the long term.







Agen  
Berkelanjutan  
Global  
Global  
Sustainable  
Agent



**#1** Mendukung transparansi lengkap dalam hal tata kelola, kebijakan, prosedur, praktik, dan kinerja perusahaan kepada para pemangku kepentingan global kami;

To promote complete transparency in terms of governance, policy, procedures, practices and the company's performance to our global stakeholders;

**#2** Mengejar peluang yang berkontribusi pada pencapaian target global yang terkait dengan bisnis kami, dengan mencari kemitraan, solusi, dan teknologi untuk tantangan pembangunan berkelanjutan;

To pursue opportunities that contribute to achieving global targets related to our business, by seeking partnerships, solutions and technology for challenges to sustainable development;

**#3** Bekerja secara harmonis dengan para pemangku kepentingan kami untuk berkontribusi pada pembangunan warisan positif bagi generasi mendatang, menyeimbangkan aspek sosial, lingkungan, dan ekonomi dari bisnis kami;

To work harmoniously with our stakeholders in order to contribute to the construction of a positive legacy for future generations, balancing the social, environmental and economic aspects of our business;

**#4** Memantau dan mengantisipasi tren dalam tema global keberlanjutan dengan mengembangkan, mengadopsi, berbagi, dan mempromosikan wawasan praktik terbaik, sehingga bisa terus meningkatkan kinerja kami.

To monitor and anticipate trends in global themes of sustainability by developing, adopting, sharing and promoting insights of best practices, so as to continuously improve our performance.

**#5** Oleh karena itu, di luar kebijakan spesifik kami tentang Perubahan Iklim dan Hak Asasi Manusia, kami berusaha untuk berkontribusi pada Tujuan Pembangunan Berkelanjutan PBB (UN-2015).

Therefore, beyond our specific Climate Change and Human Rights policies, we strive to contribute to the United Nations' Sustainable Development Goals (UN-2015).





## SDGs dan Pengelolaan Tambang Berkelanjutan

PT Vale melakukan sinergi kebijakan pembangunan berkelanjutan, sebagai bentuk dukungan pada upaya pencapaian Tujuan Pembangunan Berkelanjutan atau Sustainable Development Goals (SDGs). Sinergi dilakukan melalui pengelolaan tambang berkelanjutan, sesuai prinsip-prinsip kerangka kerja International Council on Mining and Metals.

PT Vale melalui Indonesia Business Council for Sustainable Development (IBCSO) turut berkontribusi dalam mendukung SDGs. PT Vale fokus pada lima tujuan dengan best practice program yang dimiliki.

## SDGs and Sustainable Mining Management

PT Vale synergizes its sustainable development policies to support achieving the Sustainable Development Goals (SDGs). This synergy involves sustainable mining management based on the International Council on Mining and Metals framework principles.

PT Vale through the Indonesia Business Council for Sustainable Development (IBCSO) helps support the SDGs. PT Vale focuses on five objectives in its best practice program.



**Pertanian Berkelanjutan dan Ramah Lingkungan**  
Sustainable and Environmentally Friendly Agriculture



**Energi Terbarukan untuk Operasi Kami**  
Renewable Energy for Our Operation



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



**Program Pembibitan Tanaman Modern dan Konservasi Ebony**  
Modern Plant Nursery and Ebony Conservation Program



**Etika dan Perilaku**  
Ethics and Conduct

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

More information on PT Vale's program to support SDGs can be found at <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

Sustainable Mining Management Principles Based on  
the International Council for Mining and Metals Framework

### **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.

### **Mengintegrasikan pembangunan berkelanjutan dalam strategi perusahaan dan proses pengambilan keputusan**

Integrate sustainable development in corporate strategy and decision-making processes.

### **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.

### **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.

### **Mengupayakan pengembangan berkelanjutan kinerja kesehatan dan keselamatan, dengan tujuan akhir zero harm**

Pursue continual improvement in health and safety performance with the ultimate goal of zero harm.

### **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.

Berkontribusi pada konservasi keanekaragaman hayati dan pendekatan terpadu perencanaan penggunaan lahan.

Contribute to the conservation of biodiversity and integrated approaches to land-use planning.

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.

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.

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.

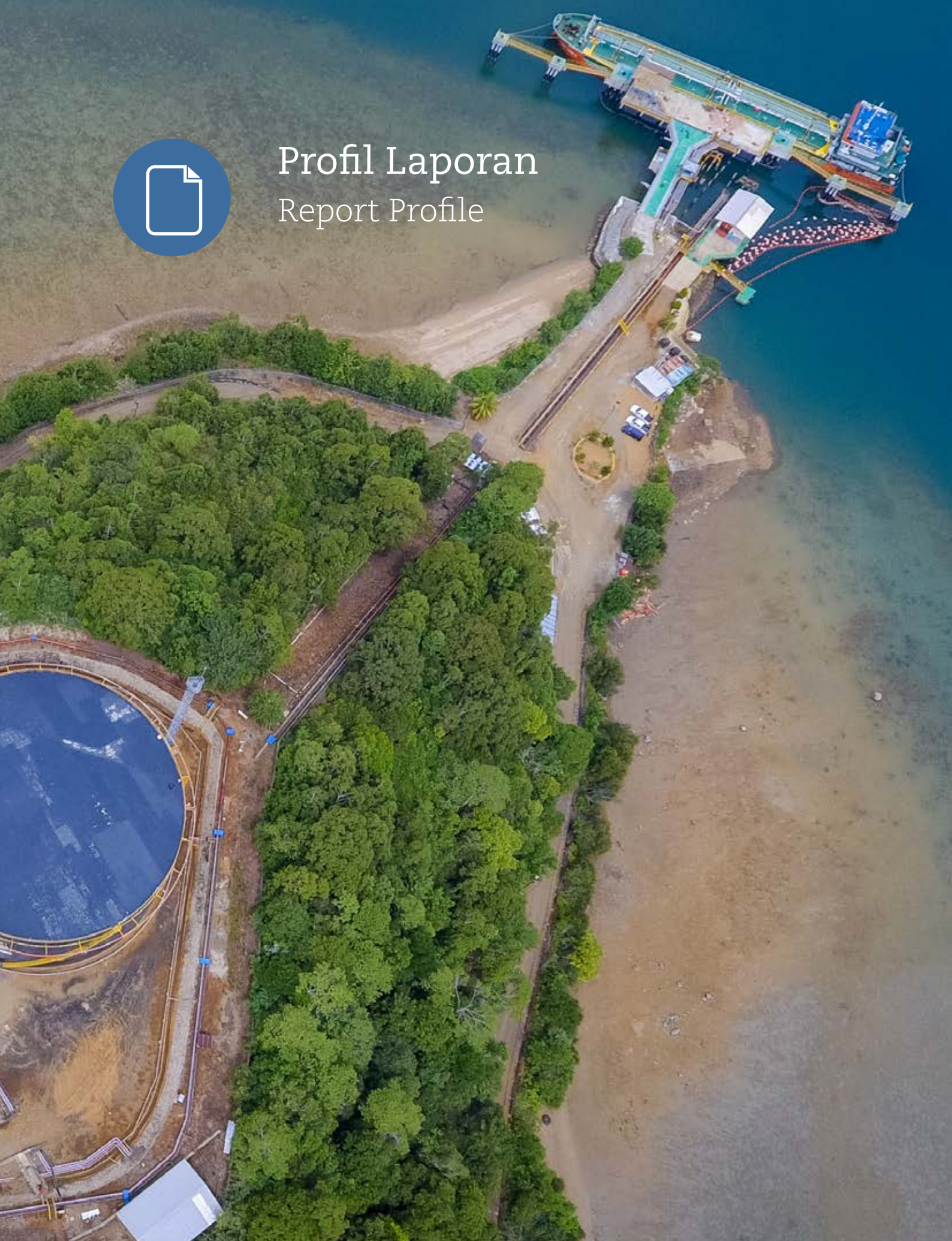






# Profil Laporan

## Report Profile





Laporan Keberlanjutan diterbitkan setiap tahun. Laporan Keberlanjutan 2019 mencakup pelaksanaan kinerja keberlanjutan pada kurun waktu 1 Januari – 31 Desember 2019. Laporan sebelumnya diterbitkan pada 12 Maret 2019. Tidak ada perubahan topik prioritas material pada tahun 2019, akan tetapi terdapat pernyataan kembali (*restatement*) atas informasi yang sudah disampaikan dalam Laporan Keberlanjutan sebelumnya, seperti data pelaporan pelanggaran melalui WBS, biaya produksi nikel dalam *matte*, dan kinerja pencapaian K3. Perubahan ini dikarenakan perbedaan format data yang digunakan. [102-50] [102-51][102-52][102-48][102-49]

Sustainability Reports are published annually. The 2019 Sustainability Report covers the implementation of sustainability performance for the January 1 - December 31, 2019 period. The previous report was published on March 12, 2019. There are no changes in the material priority topics in 2019, but there are restatements for information in the previous Sustainability Report, including violation reporting through the WBS, nickel in matte production costs, and OHS achievement performance. These changes were due to different data formats being used. [102-50] [102-51][102-52][102-48][102-49]





Laporan Keberlanjutan 2019 disusun dengan mengacu pada: [102-54]

- GRI Standards: *Core option* dan standar GRI tahun 2016 dan edisi tahun 2018 untuk topik keselamatan dan kesehatan kerja (K3).
- Peraturan Otoritas Jasa Keuangan (POJK): POJK 51/ POJK.03/2017 Tentang Penerapan Keuangan Berkelanjutan Bagi Lembaga Jasa Keuangan, Emiten dan Perusahaan Publik. Sesuai bisnis PT Vale di bidang pertambangan, Perusahaan melakukan penyesuaian dalam menyampaikan informasi.

Laporan ini tidak mengungkapkan informasi yang kurang relevan, termasuk 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.

The 2019 Sustainability Report was prepared with reference to: [102-54]

- GRI Standards: Core option and the 2016 GRI standards, including the 2018 version of Occupational Health and Safety (OHS) topic.
- Financial Services Authority Regulation (POJK): POJK 51/POJK.03/2017 regarding the Application of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies. As PT Vale's business is in the mining sector, the Company made adjustments to the information provided.

This report does not disclose less relevant information, including customer satisfaction surveys, use of environmentally friendly materials, environmentally friendly products, and matters related to the implementation of Sustainable Finance, including problems encountered, funding targets, and product development responsibilities. Also, there were no spills resulting from the Company's operations.

Kontak Untuk Informasi Laporan Keberlanjutan: [102-53]  
Sustainability Report Information:

**Agus Superiadi**

Director of Site & Support Services

The Energy Building, 31<sup>st</sup> Floor  
Jl. Jenderal Sudirman Kav. 52-53, Jakarta 12190, Indonesia  
Tel: +62 21 524 9000 Fax: +62 21 524 9020

## Penentuan Isi Laporan dan Batasan Dampak Topik Material

Laporan Keberlanjutan 2019 disusun berdasarkan prinsip dan tahapan pelaporan, dengan tetap memperhatikan topik material yang telah ditentukan. Topik material dalam Laporan Keberlanjutan 2019 sama dengan topik material untuk penyusunan Laporan Keberlanjutan 2018, yang telah ditentukan dalam diskusi pada 12 November 2018. Kesamaan topik material didasarkan pertimbangan masih relevan dengan kegiatan operasional dan usaha yang dijalankan PT Vale selama tahun 2019. [102-46]

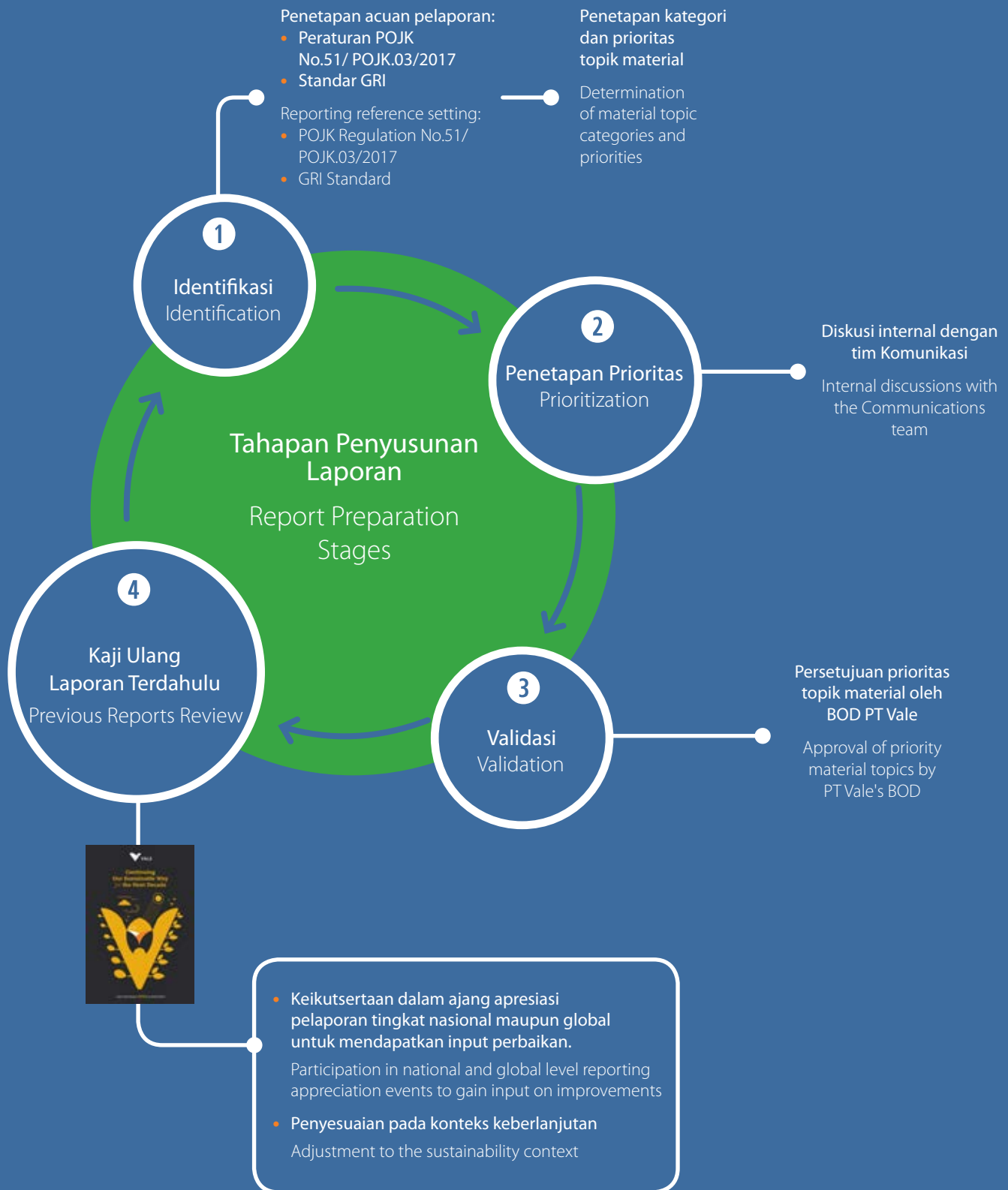
## Report Content Determination and Material Topic Impact Limitation

The 2019 Sustainability Report is prepared based on the principles and stages of reporting after taking into account the pre-determined material topics. The material topics in the 2019 Sustainability Report are the same as the material topics in the 2018 Sustainability Report, following discussions on November 12, 2018. The material topics were based on those considered still relevant to PT Vale's operational and business activities during 2019. [102-46]







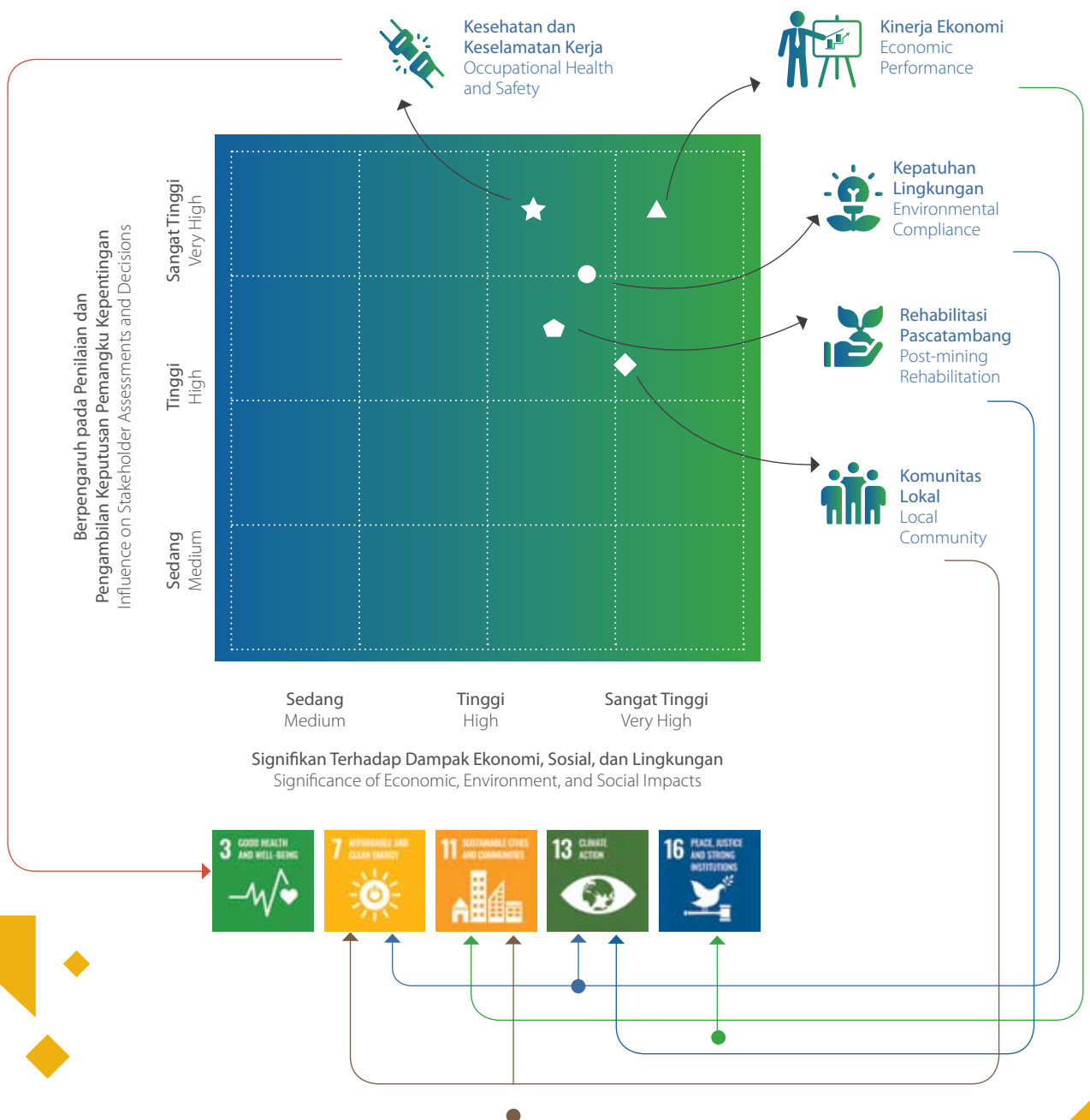




Entitas pelaporan mencakup laporan keuangan konsolidasian yang telah diaudit pihak independen, dengan wilayah operasi: Sorowako, Pomalaa, Bahodopi, kantor perwakilan di Makassar, dan kantor pusat di Jakarta. Perseroan melakukan penyesuaian topik material dalam pengungkapan informasi atas Laporan Keberlanjutan terdahulu. [102-45]

The reporting entities included consolidated financial statements audited by an independent party for the operating areas: Sorowako, Pomalaa, Bahodopi, representative offices in Makassar, and Head Office in Jakarta. The Company adjusted the material topic information disclosed in previous Sustainability Reports. [102-45]

### Matriks Topik Material Material Topics Matrix



## Daftar Topik Material dan Batasan Dampak [102-47][103-1]

### Material Topics and Boundaries

Topik Material Material Topics	Wilayah Terdampak Affected Areas		Alasan Pengungkapan Informasi Topik Keberlanjutan Reasons for Sustainability Topic Information Disclosure
	Kantor Pusat Head Office	Area Operasi Operating Areas	
<b>Kesehatan dan Keselamatan Kerja</b> Occupational Health and Safety 	✓	✓ Sorowako Bahodopi Pomalaa	<ul style="list-style-type: none"> <li>• K3 penting diinformasikan karena karakteristik operasi yang dijalankan Perusahaan memiliki risiko tinggi terhadap kesehatan dan keselamatan karyawan.</li> <li>• K3 penting diinformasikan agar pemangku kepentingan mengetahui komitmen Perusahaan menyediakan tempat kerja sehat dan aman, sesuai nilai: kehidupan adalah yang terpenting.</li> <li>• OHS information is important as the operations carried out by the Company pose a high risk to health and employee safety.</li> <li>• 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.</li> </ul>
<b>Kinerja Ekonomi</b> 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>
<b>Komunitas Lokal</b> Local Community  	N/A	✓ Sorowako	<ul style="list-style-type: none"> <li>• Penting diungkapkan karena komunitas lokal merupakan salah satu pemangku kepentingan strategis yang selama 50 tahun berkembang bersama Perusahaan.</li> <li>• Penting diungkapkan karena Perusahaan terus berupaya meningkatkan kesejahteraan masyarakat lokal melalui PPM.</li> <li>• An important disclosure as the local community is one of the strategic stakeholders that has developed with the Company over 50 years.</li> <li>• An important disclosure as the Company continues to work to improve the local communities welfare through the PPM.</li> </ul>
<b>Rehabilitasi Pascatambang</b> Post-mining Rehabilitation  	✓	✓ Sorowako	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul>
<b>Kepatuhan Lingkungan</b> Environmental Compliance   	✓	✓ Sorowako	<p>Penting diungkapkan karena PT Vale memahami kegiatan operasi yang dilakukan berdampak terhadap lingkungan, sehingga berkomitmen menerapkan praktik-praktik pertambangan berwawasan lingkungan, serta mengelola lingkungan sesuai peraturan dan ketentuan-ketentuan yang berlaku.</p> <p>An important disclosure as PT Vale understands that their operations have an environmental impact, so it is committed to implementing environmentally sound mining practices, as well as environmental management in accordance with applicable regulations and provisions.</p>





## Verifikasi dan Penjaminan Independen [\[102-56\]](#) Independent Verification and Assurance

Proses penjaminan (*assurance*) atas Laporan Keberlanjutan 2019 dilakukan pihak independen, yakni SR Asia perwakilan Indonesia, yang mempunyai lisensi AA1000 AS. Proses *assurance* dilakukan pada 13 dan 17 Maret di kantor PT Vale Jakarta dan melalui *teleconference* dengan kantor Sorowako.

Selama proses *assurance*, PT Vale menyiapkan semua dokumen yang sudah diverifikasi dan melalui pejabat perusahaan yang berwenang memberikan penjelasan atas hal-hal terkait informasi pelaporan. Proses *assurance* dipantau Manajemen PT Vale dan SR Asia International yang berpusat di India.

Laporan dilengkapi Indeks GRI untuk memudahkan pengguna laporan menemukan pengungkapan informasi yang dimaksudkan. Indeks GRI ada di bagian akhir Laporan. [\[102-55\]](#)

The assurance process for the 2019 Sustainability Report was carried out by an independent party, namely SR Asia, Indonesia representative with a US AA1000 license. The assurance process was carried out on March 13 and 17 at PT Vale's Jakarta office and through a teleconference with the Sorowako office.

During the assurance process, PT Vale prepared all documents to be verified and, through authorized Company officials, gave explanations on matters related to reporting information. The assurance process was monitored by PT Vale and SR Asia International's management based in India.

This Report includes the GRI Index to make it easier for report users to find the intended disclosure. The GRI index can be found at the end of the Report. [\[102-55\]](#) [\[102-55\]](#)







# Tata Kelola Keberlanjutan

## Sustainability Governance





## Struktur Tata Kelola Keberlanjutan

Sesuai Undang-Undang No.40 Tahun 2007 Tentang Perusahaan Terbatas, struktur tata kelola PT Vale Indonesia Tbk., atau PT Vale, terdiri atas: [102-18]

- RUPS, yang merupakan organ tertinggi dalam struktur tata kelola.
- Dewan Komisaris merupakan organ yang memiliki tugas dan tanggung jawab mengawasi serta memberikan nasihat kepada Direksi dalam mengelola PT Vale.
- Direksi merupakan organ yang memiliki tugas dan tanggung jawab mengelola PT Vale.

Direksi PT Vale dipimpin Direktur Utama, yang salah satu tugas dan tanggung jawabnya berkaitan atas pengambilan keputusan tertinggi mengenai isu keberlanjutan. Direktur Utama dapat mendelegasikan tugas dan tanggung jawab tersebut kepada anggota Direksi lain, berdasarkan aspek keberlanjutan ekonomi, sosial, dan lingkungan, sesuai dengan pembagian tugas dan tanggung jawab masing-masing anggota Direksi. Untuk aspek sosial di bawah Direktur Support and Site Services, serta aspek lingkungan dan energi di bawah Direktur Operasi (COO).

## Sustainability Governance Structure

In accordance with the 2007 Law No. 40 regarding Limited Liability Companies, the governance structure for PT Vale Indonesia Tbk., or PT Vale, consists of: [102-18]

- The GMS, as the highest body in the governance structure.
- The Board of Commissioners as a body that has the duties and responsibilities to supervise and give advice to the Board of Directors in managing PT Vale.
- The Board of Directors as a body that has the duties and responsibilities for managing PT Vale.

PT Vale's Board of Directors is led by the President Director, whose duties and responsibilities include the highest decision-making regarding sustainability issues. The President Director can delegate these duties and responsibilities to other members of the Board of Directors, based on the economic, social, and environmental sustainability aspects, in accordance with each member of the Board of Directors division of duties and responsibilities. Social aspects fall under the Director of Support and Site Services, and environmental and energy aspects fall under the Director of Operations (COO).

Pengungkapan informasi tentang pembagian tugas dan tanggung jawab anggota Direksi dan manajemen risiko disampaikan dalam Laporan Tahunan 2019 PT Vale Indonesia Tbk.

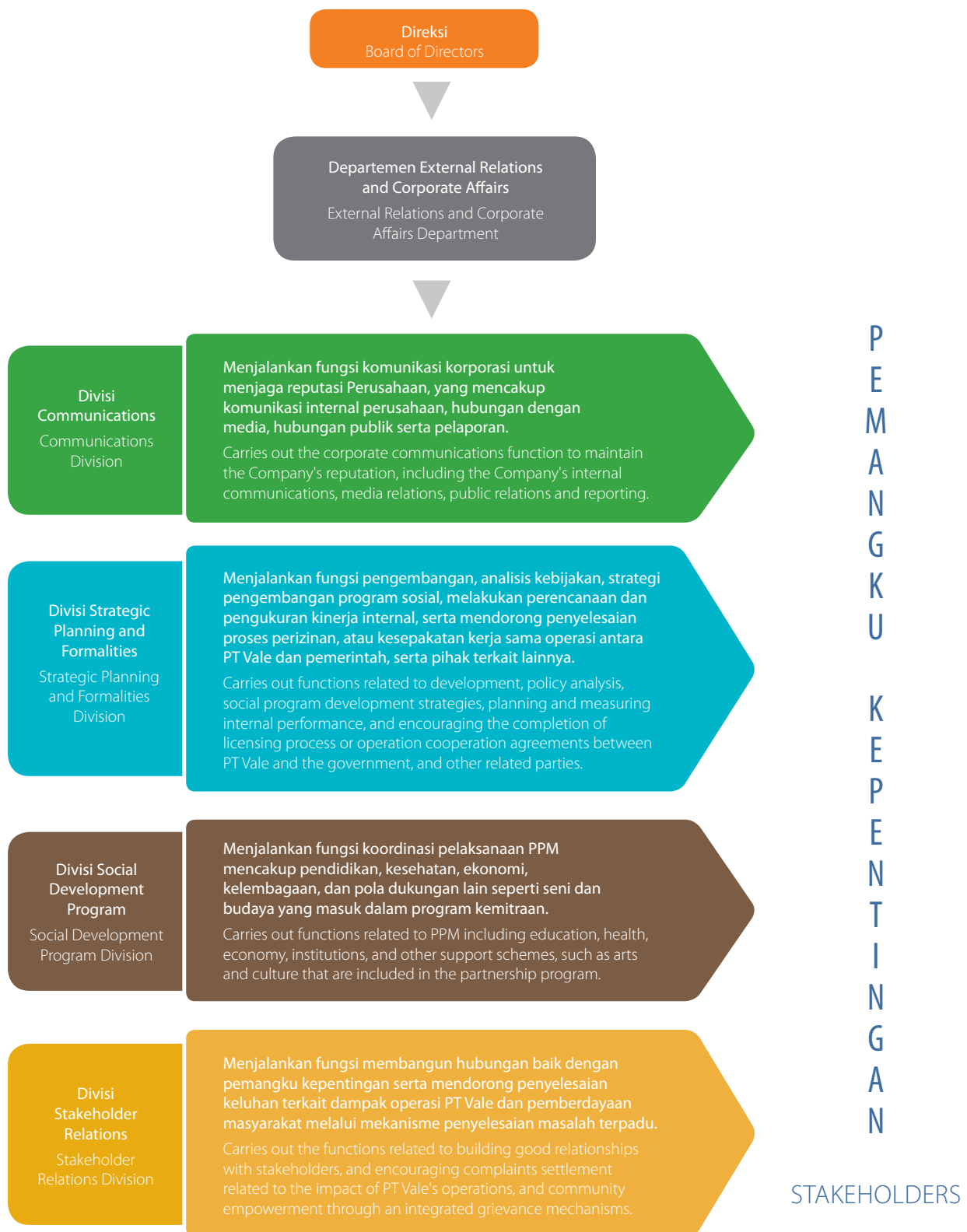
Disclosure of information regarding the division of duties and responsibilities for members of the Board of Directors, and risk management have been included in the PT Vale Indonesia Tbk 2019 Annual Report.

## Pendelegasian Kewenangan dan Tata Kelola Keberlanjutan

### Delegation of Authority and Sustainable Governance

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.

The Board of Directors has delegated the consultations and communications with stakeholders related to fulfillment of social and environmental responsibility (TJSL) to the External Relations and Corporate Affairs Department, which has four supporting divisions.



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.

To improve sustainability performance, the Board of Directors and Board of Commissioners is active in developing sustainability competencies. Competency development is carried out through global leadership workshops held every year.





## Kepatuhan Pada Kode Etik dan Pencegahan Antikorupsi

### Compliance with the Code of Ethics and Anti-Corruption Prevention

PT Vale menerapkan Kode Etik dan Perilaku yang diadopsi dari Kode Etik dan Perilaku Vale S.A. sebagai pedoman bagi semua pihak, baik pemangku kepentingan internal maupun eksternal, dalam menjalankan kegiatan usahanya. Kode Etik dan Perilaku yang diterapkan oleh PT Vale mencakup berbagai bidang antara lain terkait 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, serta memerangi korupsi.

Selain itu berbagai program juga dilakukan untuk mempromosikan Kode Etik dan Perilaku antara lain:

- **Ethics Roadshow** – kegiatan ini dilakukan untuk memperkenalkan unit ini, termasuk menginformasikan kembali kepada karyawan mengenai saluran pelaporan pelanggaran.
- **Sosialisasi mengenai konflik kepentingan** – dalam sesi ini karyawan diajak berdiskusi mengenai konflik kepentingan, termasuk apa yang harus dilakukan oleh karyawan jika memiliki konflik kepentingan ataupun mengetahui ada rekan kerjanya yang berada pada situasi tersebut.
- **Aksi untuk Integritas** – kegiatan ini merupakan acara global yang dilakukan setiap tahun untuk mendorong refleksi etika dan integritas di perusahaan, yang memperkuat nilai kita untuk melakukan hal yang benar. Pada tahun 2019 yang menjadi tema pembahasan adalah "Tim pemenang tidak akan bungkam".

Sebagai bagian dari usaha untuk mencegah dan memerangi korupsi, PT Vale mengembangkan prosedur persetujuan yang ketat dalam berinteraksi dengan pejabat pemerintah dan pihak ketiga melalui fungsi *Compliance Officer*. Kegiatan interaksi ini antara lain yang berkaitan dengan perizinan dan pengelolaan rantai pasok (SCM) yang mempunyai potensi menimbulkan perbuatan korupsi maupun benturan kepentingan lain. Selama tahun 2019 PT Vale tidak melakukan *assessment* ulang untuk mengidentifikasi kegiatan operasional yang berisiko terjadinya korupsi. [205-1]

PT Vale applies the Vale S.A. Code of Ethics and Conduct as a guideline for all parties, both internal and external stakeholders, when carrying out their business activities. PT Vale's Code of Ethics and Conduct covers the areas of health and safety, human rights, inclusive and diverse work environment, honest competition, conflicts of interest, using company resources properly, working with suppliers, exchanging gifts, information protection, representing Vale, and fighting corruption.

Other programs carried out to promote the Code of Ethics and Conduct, include:

- **Ethics Roadshow** – carried out to introduce this unit, including informing employees about violation reporting channels.
- **Socialization of conflicts of interest** – employees are invited to discuss conflicts of interest, including what employees must do if they have a conflict of interest or know of a colleague in a similar situation.
- **Action for Integrity** – a global event held every year to encourage ethical reflection and integrity in the Company to reinforce our value of doing the right thing. In 2019 the discussion theme was, "The winning team will not be silenced."

As part of its efforts to prevent and ban corruption, PT Vale has developed a strict approval procedure for interactions with government officials and third parties through the Compliance Officer function. These interactions include those related to licensing and supply chain management (SCM) which have the potential to cause corruption and other conflicts of interest. During 2019, PT Vale did not conduct a reassessment to identify operational activities that are at risk of corruption. [205-1]



Selain prosedur persetujuan yang ketat, PT Vale juga mengadakan pelatihan secara *online* untuk karyawannya untuk penyegaran kembali program antikorupsi khususnya kepada para manajer dan staf yang berinteraksi dengan pemerintah dan masyarakat. Pelatihan dimulai sejak 16 September 2019 dan telah diikuti oleh 37% karyawan PT Vale hingga tanggal 31 Desember 2019, dan telah mencakup 98% karyawan pada akhir bulan Februari 2020. Sosialisasi kepada masyarakat dan pihak pemerintah pun telah dilakukan selama tahun 2019 sebagai upaya untuk mendukung praktik-praktik antikorupsi. [205-2]

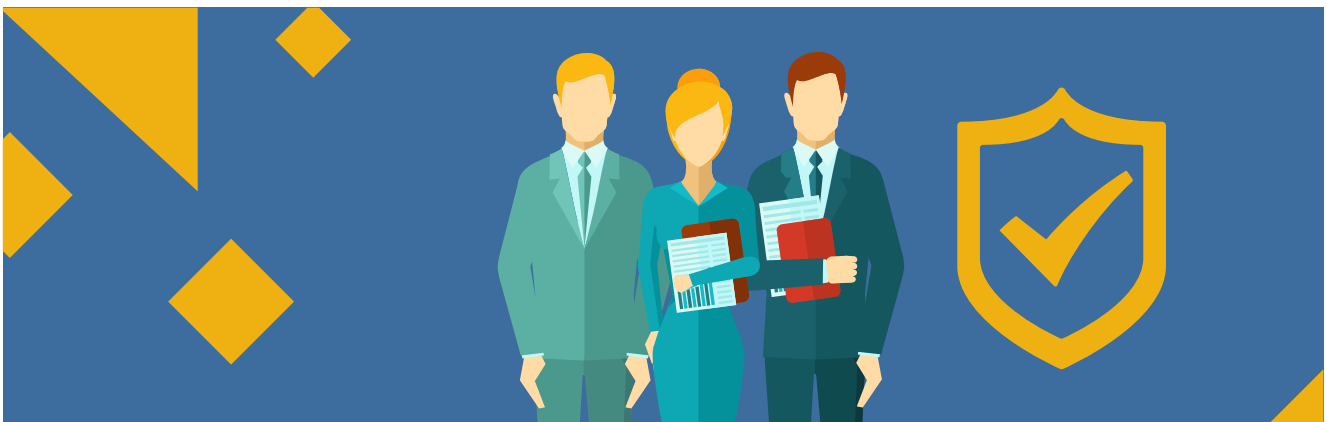
Dengan adanya Kode Etik dan Perilaku, PT Vale menyediakan Vale Whistleblowing Channel (VWC) sebagai saluran pelaporan pelanggaran terhadap Kode Etik dan Perilaku. Setiap laporan yang disampaikan melalui VWC akan diproses secara obyektif dan independen. Berdasarkan data dari Departemen Ethics and Conduct Office, selama tahun 2019 terjadi 24 laporan pelanggaran yang disampaikan melalui VWC. Dari 24 laporan tersebut tidak terdapat pelanggaran terkait Antikorupsi. [205-3]

PT Vale menjamin kerahasiaan, kemandirian tanpa intervensi, ketidakberpihakan dan kekebalan dalam penanganan, penyelidikan, dan penyimpanan informasi yang diterima melalui VWC. Setiap laporan diterima oleh lembaga independen dan langsung disampaikan ke Ethics and Conduct Office di Brazil. Proses penindakan dilakukan sesuai peraturan dan mendapat pengawasan dari pemegang saham PT Vale.

In addition to strict approval procedures, PT Vale also conducted online anti-corruption training for its employees, specifically for managers and staff who interact with the Government and the communities. The training from September 16, 2019 until December 31, 2019 was received by 37% of PT Vale's employees, and had reached 98% of employees by the end of February 2020. Socialization to the public and the Government was also carried out during 2019 as an effort to support anti-corruption practices. [205-2]

To support the Code of Ethics and Conduct, PT Vale provides the Vale Whistleblower Channel (VWC), a reporting channel for Code of Ethics and Conduct violations. Every report submitted through VWC will be processed objectively and independently. Based on data from the Ethics and Conduct Office Department, in 2019 there were 24 violation reports received through VWC. None of the 24 violation reports related to Anti-Corruption. [205-3]

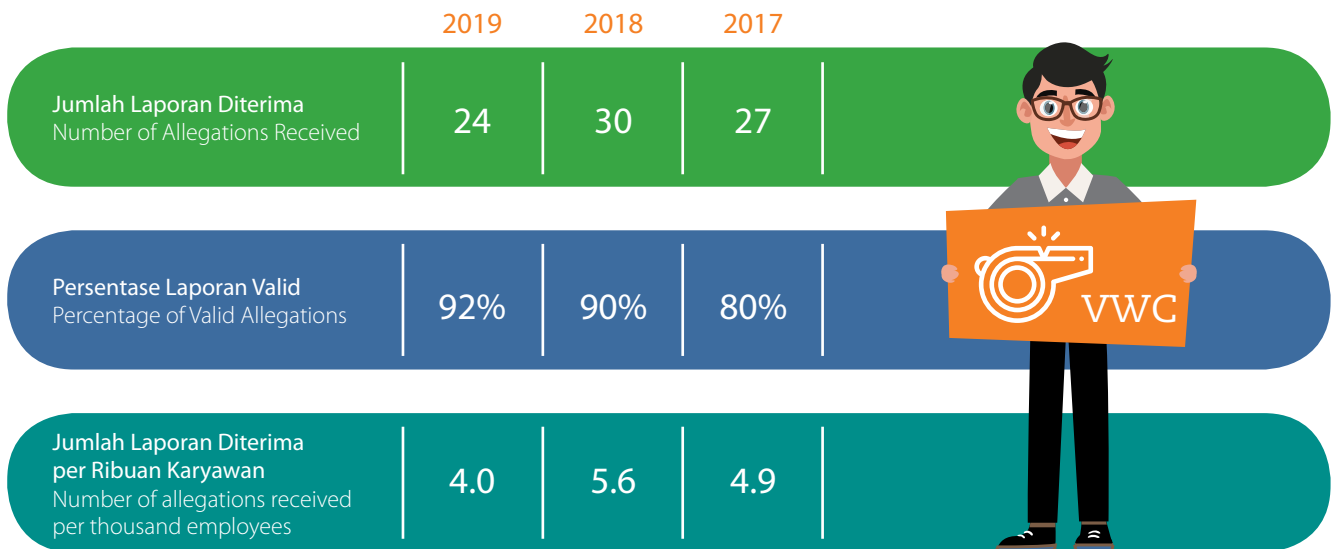
When handling, investigating and storing information received through the VWC, PT Vale guarantees confidentiality, independence without intervention, impartiality and immunity. Each report is received by an independent agency and submitted directly to the Ethics and Conduct Office in Brazil. The enforcement process is conducted in line with regulations, under the supervision of PT Vale's shareholders.





## Penanganan Pelaporan Pelanggaran Melalui VWC

### Violation Reporting Handled Through VWC



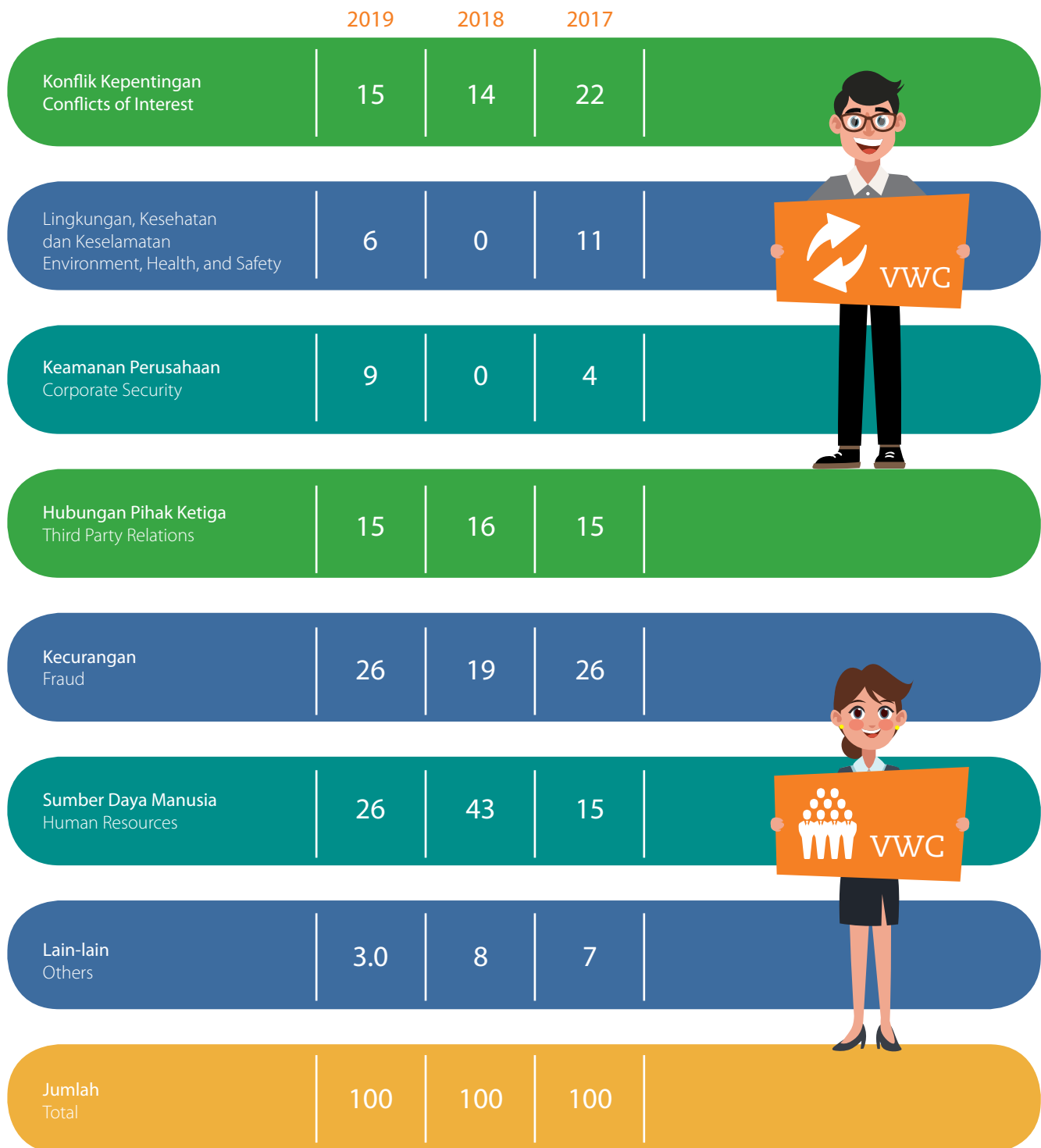
### Persentase Konfirmasi Jumlah Laporan Valid Setelah Investigasi\*

#### Percentage of Valid Allegations Confirmed After Investigation\* (%)



\* Berdasarkan tahun selesai dilakukannya investigasi.  
\* Per year of investigation completed

Pelaporan yang Telah Diinvestigasi Berdasarkan Kategori (%)  
 Reports Investigated Based on Category (%)



• Restatement beberapa data pada tahun 2018 dan 2017 diperbaharui berdasarkan revisi dari Vale S.A.  
 • Restatement of data for the years 2018 and 2017 were updated based on revisions from Vale S.A [102-48]

Informasi mengenai tindak lanjut pelaporan Whistleblower Channel dapat dilihat di Laporan Tahunan Vale 2019.  
 Information on the follow-up to the Whistleblower Channel's report can be seen in the 2019 Annual Report.





PT Vale belum melakukan *assessment* untuk mengidentifikasi kegiatan operasional yang berisiko terjadinya korupsi. Namun demikian, Persero telah mengidentifikasi kegiatan perizinan dan pengelolaan rantai pasok (SCM) yang mempunyai potensi menimbulkan perbuatan korupsi maupun benturan kepentingan lain. Oleh karena itu, PT Vale mengembangkan prosedur persetujuan yang ketat dalam berinteraksi dengan pejabat pemerintah dan pihak ketiga melalui fungsi Compliance Officer. [205-1]

Pelatihan dan sosialisasi antikorupsi kepada seluruh karyawan baru dan penyegaran kembali program antikorupsi kepada para manajer dan staf yang berinteraksi dengan pemerintah dan masyarakat telah dilakukan selama tahun 2019 sebagai upaya untuk mendukung praktik-praktik antikorupsi. [205-2]

PT Vale has not yet conducted an assessment to identify operational activities that are at risk of corruption. However, the Company has identified the licensing and supply chain management (SCM) activities as having the potential for corruption or other conflicts of interest. Therefore, PT Vale has established strict approval procedures for interacting with government officials and third parties through the Compliance Officer function. [205-1]

Anti-corruption training and outreach to all new employees and refreshment for the anti-corruption program was conducted during 2019 for managers and staff who interact with the government and the community in an effort to support anti-corruption practices. [205-2]

## Pendekatan Pemangku Kepentingan Stakeholders Engagement

Keberlanjutan PT Vale tak bisa dilepaskan dari dukungan pemangku kepentingan. Berdasarkan pemetaan yang telah dilakukan dan tertuang dalam stakeholder mapping, PT Vale mengidentifikasi pemangku kepentingan adalah kelompok dan individu yang dapat mempengaruhi dan atau dipengaruhi oleh pencapaian tujuan dari sebuah organisasi. Identifikasi pemangku kepentingan telah dibahas dan disetujui oleh manajemen. Sebagian di antara pemangku kepentingan, yakni masyarakat, pemerintah daerah dan karyawan melalui asas keterwakilan, telah diikutsertakan dalam proses penentuan topik material untuk pengungkapan informasi dalam laporan keberlanjutan ini. [102-42]

PT Vale's sustainability is supported by its stakeholders. Based on stakeholder mapping, PT Vale has identified its stakeholders as groups and / or individuals who can influence, or could be influenced by the achievement of the Company's goals. Stakeholder identification has been discussed and agreed with management. Several stakeholders, namely the community, local Governments and employees, through the principle of representation, have been included in the process of determining material topics for information disclosure in this Sustainability Report. [102-42]





## Daftar Pemangku Kepentingan, Pendekatan dan Topik Pembahasan

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

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
<b>Pemangku Kepentingan Internal</b>			<b>Internal Stakeholders</b>	
<ul style="list-style-type: none"> <li>• Karyawan</li> <li>• Pemimpin Perusahaan</li> <li>• Kontraktor</li> <li>• Employees</li> <li>• Company Leaders</li> <li>• Contractors</li> </ul>	<p>Kebijakan Komunikasi dan Sistem Pengelolaan Sosial.</p> <p>Communication Policy and Social Management System</p>	<ul style="list-style-type: none"> <li>• Fluktuasi harga nikel dunia.</li> <li>• Peningkatan efisiensi dan produktivitas.</li> <li>• Penguatan posisi dan pasar.</li> <li>• Penguatan kapasitas pemasok lokal dan peningkatan tingkat komponen dalam negeri (TKDN).</li> <li>• Kinerja ekonomi.</li> <li>• Kesehatan dan keselamatan kerja.</li> <li>• Energi.</li> <li>• Emisi.</li> <li>• Global nickel price fluctuations</li> <li>• Increasing efficiency and productivity</li> <li>• Strengthening of position and market</li> <li>• Strengthening the capacity of local suppliers and increasing total domestic content (TKDN)</li> <li>• Economic performance</li> <li>• Occupational Health and Safety</li> <li>• Energy</li> <li>• Emissions</li> </ul>	<ul style="list-style-type: none"> <li>• Rapat Umum Pemegang Saham (RUPS).</li> <li>• Penyusunan rencana kerja dan anggaran tahunan.</li> <li>• Penerapan program Promote National Interest (PNI) dan Local Business Initiative (LBI).</li> <li>• Penyusunan perjanjian kerja bersama (PKB)</li> <li>• Townhall Meeting</li> <li>• General Meeting of Shareholders</li> <li>• Preparation of work plans and annual budgets</li> <li>• Implementation of Promote National Initiative (NPI) and Local Business Initiative (LBI).</li> <li>• Development of a collective labor agreement (CLA)</li> <li>• Townhall Meeting</li> </ul>	<ul style="list-style-type: none"> <li>• RUPS minimal satu kali dalam setiap tahun.</li> <li>• Dialog dan komunikasi berkala dengan karyawan dan kontraktor.</li> <li>• Pembaharuan PKB setiap dua tahun.</li> <li>• GMS at least once per year.</li> <li>• Regular dialogue and communication with employees and contractors.</li> <li>• Renewal of CLA every two years.</li> </ul>
<b>Pemangku Kepentingan Eksternal</b>			<b>External Stakeholders</b>	
<ul style="list-style-type: none"> <li>• Komunitas</li> <li>• Pemimpin formal.</li> <li>• Pemimpin informal.</li> <li>• Community</li> <li>• Formal leaders</li> <li>• Informal leaders</li> </ul>	<p>Kebijakan Komunikasi dan Sistem Pengelolaan Sosial</p> <p>Communication Policy and Social Management System</p>	<ul style="list-style-type: none"> <li>• Pelibatan dalam proses perencanaan program pengembangan masyarakat, pelaksanaan dan pemantauan.</li> <li>• Pelibatan dalam pertimbangan proses perekrutan pekerja lokal.</li> <li>• Pemberdayaan komunitas lokal.</li> <li>• Involvement in community development program planning, implementation and monitoring processes</li> <li>• Involvement in consideration of local hiring process</li> <li>• Empowerment of local communities</li> </ul>	<ul style="list-style-type: none"> <li>• Pelaksanaan program pengembangan masyarakat sesuai kebutuhan.</li> <li>• Pemantauan dan evaluasi program pengembangan masyarakat serta penyampaian hasilnya.</li> <li>• Penyampaian informasi perekrutan tenaga kerja lokal dan proses perekrutan yang terbuka.</li> <li>• Implementation of community development programs as agreed.</li> <li>• Monitoring and evaluation of community development programs and delivery of results</li> <li>• Delivery of local recruitment information and an open recruitment process</li> </ul>	<p>Satu kali dalam setiap pekan atau sesuai dengan kebutuhan.</p> <p>Once a week or as needed</p>





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
<p>Pemerintah dan swasta</p> <ul style="list-style-type: none"> <li>• Pemerintah lokal</li> <li>• Pemerintah pusat</li> <li>• TNI/Polri</li> <li>• Investor</li> <li>• Pelanggan</li> <li>• Pemasok dan mitra</li> <li>• Sektor publik</li> </ul> <p>Government and Private Sector</p> <ul style="list-style-type: none"> <li>• Local government</li> <li>• Central government</li> <li>• TNI/Polri</li> <li>• Investors</li> <li>• Customers</li> <li>• Suppliers and partners</li> <li>• Public sector</li> </ul>	<p>Kebijakan Komunikasi dan Sistem Pengelolaan Sosial</p> <p>Communication Policy and Social Management System</p>	<ul style="list-style-type: none"> <li>• Kerjasama dan dukungan pada praktik-praktik tata kelola pemerintahan yang baik, transparansi, akuntabilitas dan antikorupsi.</li> <li>• Tumpang tindih izin usaha pertambangan (IUP) dengan pihak lain.</li> <li>• Pengelolaan limbah.</li> <li>• Informasi kinerja dan kepatuhan perusahaan.</li> <li>• Cooperation and support on good corporate governance, transparency, accountability and anticorruption practices</li> <li>• Overlapping business licenses (IUP) with other parties</li> <li>• Waste management.</li> <li>• Information on company performance and compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• Musyawarah rencana pembangunan (musrenbang)</li> <li>• Koordinasi penerapan Program CSR Terpadu dengan aparat satuan kerja perangkat daerah (SKPD).</li> <li>• Pelaporan kinerja dan kepatuhan Perusahaan</li> <li>• Development Planning meetings and discussions (<i>musrenbang</i>)</li> <li>• Coordination for Integrated CSR Program with apparatus from Local Government Work Units (SKPD)</li> <li>• Company performance and compliance reporting.</li> </ul>	<ul style="list-style-type: none"> <li>• Pertemuan berkala, satu kali dalam sepekan atau sesuai kebutuhan.</li> <li>• Penerbitan laporan berkala dan publikasi kinerja dan kepatuhan Perusahaan sesuai ketentuan/ peraturan otoritas berwenang.</li> <li>• Periodic meetings, once a week or as needed.</li> <li>• Issuance of periodic Company performance and compliance reports and publication in accordance with regulatory provisions / regulations.</li> </ul>
<p>Pengamat</p> <ul style="list-style-type: none"> <li>• Media massa</li> <li>• Akademisi</li> <li>• LSM</li> <li>• Entitas Lain</li> </ul> <p>Observers</p> <ul style="list-style-type: none"> <li>• Media</li> <li>• Academicians</li> <li>• NGOs</li> <li>• Other Entities</li> </ul>	<p>Kebijakan Komunikasi dan Sistem Pengelolaan Sosial</p> <p>Communication Policy and Social Management System</p>	<ul style="list-style-type: none"> <li>• Konsultasi, kerjasama penyusunan CSR/PPM.</li> <li>• Konsultasi terkait kasus-kasus perselisihan lahan serta upaya penyelesaian.</li> <li>• Rehabilitasi pascatambang.</li> <li>• Informasi kepatuhan dan kinerja Perusahaan.</li> <li>• Consultation, collaborative preparation of CSR / PPM program</li> <li>• Consultation on land dispute cases and settlement efforts</li> <li>• Post-mining rehabilitation</li> <li>• Information on Company compliance and performance</li> </ul>	<ul style="list-style-type: none"> <li>• Pertemuan dan diskusi terfokus (FGD).</li> <li>• Kerja sama konsultasi dan penelitian.</li> <li>• Pelaporan kinerja dan kepatuhan Perusahaan.</li> <li>• Focus meetings and discussions (FGDs)</li> <li>• Research collaboration</li> <li>• Company performance and compliance reporting.</li> </ul>	<ul style="list-style-type: none"> <li>• Pertemuan berkala sesuai dengan kebutuhan.</li> <li>• Penerbitan berkala laporan kinerja dan kepatuhan Perusahaan, sesuai ketentuan/ peraturan otoritas berwenang.</li> <li>• Periodic meetings as needed</li> <li>• Issuance of periodic Company performance and compliance reports and publication in accordance with regulatory provisions / regulations.</li> </ul>
<p>Masyarakat Sekitar Local Communities</p>	<p>Kebijakan Komunikasi dan Sistem Pengelolaan Sosial</p> <p>Communication Policy and Social Management System</p>	<ul style="list-style-type: none"> <li>• Penghormatan pada hak-hak adat dan kearifan lokal.</li> <li>• Pemberdayaan masyarakat dan peningkatan kesejahteraan.</li> <li>• Penyampaian pengaduan/ keluhan dan tindak lanjutnya.</li> <li>• Respect for customary rights and local wisdom.</li> <li>• Community empowerment and increasing welfare.</li> <li>• Submission of grievances / complaints and follow-up</li> </ul>	<ul style="list-style-type: none"> <li>• Kepatuhan pada proses dan mekanisme perizinan.</li> <li>• Penyusunan dan pengesahan dokumen Analisis Mengenai Dampak Lingkungan (AMDAL).</li> <li>• Program Pengembangan dan Pemberdayaan Masyarakat (PPM) berbasis potensi ekonomi lokal.</li> <li>• Kesempatan kerja bagi penduduk lokal melalui proses seleksi transparan.</li> <li>• Akses pelaporan melalui WWC.</li> <li>• Compliance with licensing processes and mechanisms.</li> <li>• Preparation and ratification of Environmental Impact Analysis (AMDAL) document.</li> <li>• Community Development and Empowerment Program (PPM) based on local economic potential.</li> <li>• Job opportunities for local residents through a transparent selection process.</li> <li>• Access reporting through WWC.</li> </ul>	<p>Pertemuan sesuai dengan kebutuhan.</p> <p>Meetings as needed.</p>

# KINERJA EKONOMI

## ECONOMIC PERFORMANCE

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Mempertahankan  
Pertumbuhan  
Sustaining Growth











## Pendekatan Manajemen

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

PT Vale berkepentingan untuk menjaga pertumbuhan serta mempertahankan kinerja ekonomi yang positif demi menjamin keberlanjutan operasi dan usaha.

PT Vale has an interest in maintaining growth and positive economic performance to ensure the sustainability of operations and business.



## Realisasi

Realization:

- Biaya produksi nikel dalam *matte* AS\$7.456 per MT, lebih tinggi dibanding 2018
- Total produksi nikel dalam *matte* 71.025 MT, 93% dari target 76.650 MT
- Total penjualan nikel dalam *matte* 72.044 MT, 93% dari target 77.700 MT
- Pendapatan Usaha AS\$ 782,01 juta, 93% dari target AS\$ 841,80 juta
- Production costs for nickel in matte of US\$ 7,456 per MT, higher than 2018
- Total nickel in matte production of 71,025 MT, 93% of the target of 76,650 MT
- Total nickel in matte sales of 72,044 MT, 93% of the target of 77,700 MT
- Operating revenues of US\$ 782.01 million, 93% of the target of US\$ 841.80 million



## Kebijakan Policy

Efisiensi dan inovasi berkelanjutan.

Efficiency and sustainable innovation.



## Komitmen Commitment

- Biaya produksi yang efisien.
- Optimalisasi produksi dan penjualan.
- Cost efficient production.
- Optimization of production and sales



## Sumber Daya Resources

- Cadangan bijih nikel terbukti 66,2 juta ton
- Cadangan bijih nikel terkira 41,4 juta ton
- Kontrak penjualan jangka panjang dengan VCL dan SMM.
- Proven nickel ore reserves of 66,2 million tons.
- Probable nickel ore reserves 44.1 million tons.
- Long-term sales contracts with VCL and SMM.





## Inisiatif khusus Tahun 2019 Special 2019 Initiatives:

- Perjanjian pendahuluan dengan PT Indonesia Asahan Aluminium (Persero) atau MIND ID.
- Memaksimalkan strategi *shutdown*.
- Meningkatkan kapasitas pabrik dengan *online analyzer, dust recycle, skimming drill, radar, dan new roof electric furnace 4*.
- Memindahkan stasiun penyaringan dengan teknologi *zero water consumption*.
- Studi geoteknikal pada lereng tambang dan area penimbunan.
- Penerapan *short-term block model*.
- Penerapan manajemen dan inovasi sistem pergantian *shift* kerja operasi tambang.
- Optimalisasi dan penambahan dozer.
- Meningkatkan *recovery* penyaringan dan penambangan.
- Heads of Agreement with PT Indonesia Asahan Aluminium (Persero) or MIND ID.
- Maximizing the shutdown strategy.
- Increasing factory capacity by including online analyzers, dust recycles, skimming drills, radar, and a new roof for electric furnace 4.
- Moving the filter station with zero water consumption technology.
- Geotechnical studies on mine slopes and stockpiling areas.
- Application of short-term block models.
- Application of management and innovations in the mine shift work system.
- Optimization and addition of dozers.
- Improving filtering recovery and mining.



## Evaluasi Evaluation

- Penetapan rencana kerja dan anggaran, yang memuat target-target kinerja Perseroan.
- Penetapan *key performance indicator* (KPI), yang memuat target kinerja bagi Dewan Komisaris, Direksi dan pejabat perusahaan lain.
- Determination of work plans and budgets, including Company performance targets.
- Determination of key performance indicators (KPI), containing performance targets for the Board of Commissioners, Board of Directors and other company officials.



Informasi mengenai kinerja ekonomi yang lebih komprehensif disampaikan dalam Laporan Tahunan 2019.

More comprehensive information on economic performance can be found in the 2019 Annual Report.

## Operasional PLTA dan Biaya Produksi yang Efisien

### Hydroelectric Power Plant and Efficient Production Costs

PT Vale menerapkan operasi yang ramah lingkungan dan produksi yang efisien dengan memenuhi sendiri kebutuhan listrik untuk proses produksi, dengan mengoperasikan pembangkit listrik tenaga air (PLTA). Pengoperasian PLTA menjadikan konsumsi bahan bakar minyak (BBM) berkurang.

Sampai dengan akhir periode pelaporan, Perusahaan mengoperasikan tiga unit PLTA dengan total kapasitas produksi listrik 365 MegaWatt (MW). Secara umum pada tahun 2019 produksi listrik dari operasional PLTA telah mampu memenuhi 100% dari kebutuhan energi untuk produksi nikel dalam *matte*, meski operasional PLTA Larona pada kuartal pertama 2019 tidak optimal karena ada pengerjaan Larona *canal lining*. Kondisi ini menyebabkan pasokan listrik berkurang sehingga Perseroan mengurangi produksi nikel *matte* pada kuartal pertama 2019, untuk menjaga tingkat biaya produksi. Produksi kembali normal pada kuartal kedua 2019 setelah pengerjaan Larona *canal lining* selesai dan PLTA Larona kembali beroperasi optimal.

PT Vale implements environmentally friendly and efficient operations by fulfilling its own process electricity needs through the operation of hydroelectric power plants, reducing the need for fuel (BBM).

At the end of the reporting period, the Company operated three hydropower units with a total electricity production capacity of 365 megawatts (MW). In 2019, electricity production from hydropower operations met 100% of the energy needs for the production of nickel in *matte*. However, the Larona hydropower plant operations in the first quarter of 2019 were not optimal due to work on the Larona canal lining. This caused the electricity supply to decrease and the Company reduced nickel in *matte* production in the first quarter of 2019, to maintain the level of production costs. Production returned to normal in the second quarter of 2019 after the completion of the Larona canal relining and the Larona Hydroelectric Power Plant is now operating optimally.



#### Tentang Larona Canal Lining

Proyek ini dimulai pada 12 Februari 2019 dan selesai pada April 2019. Lingkup proyek berupa pelapisan membran pada dinding kanal dalam Larona yang berada di PLTA Larona sepanjang 7 kilometer, ditambah bagian *headpond* sepanjang 250 meter. Nilai investasi proyek sebesar AS\$55 juta dan menyerap 1.200 pekerja lokal serta 60 pekerja ekspatriat.

#### About Larona Canal Lining

The project began on February 12, 2019 and was completed in April 2019. The project scope included membrane coating along 7 kilometers of the Larona canal wall, which is used for the Larona Hydroelectric Power, plus a 250-meter headpiece section. The project investment was US\$55 million and employed 1,200 local workers and 60 expatriate workers.





## Operasional PLTA PT Vale

### PT Vale Hydroelectric Power Plant Operations

Unit PLTA HEPP Unit	Tahun Beroperasi Year of Operation	Jumlah Turbin (Unit) Number of Turbines (Unit)	Kapasitas Produksi Daya Listrik (MW) Electric Power Production Capacity (MW)
Larona	1979	3	165
Balambano	1999	2	110
Karebbe	2011	2	90
Jumlah Total		7	365

PT Vale juga menggunakan biodiesel sebagai bahan bakar untuk kendaraan bermotor operasional. Secara bertahap, Perseroan berupaya meningkatkan konsentrasi bahan bakar nabati (BBN) dalam biodiesel hingga 20% sesuai Permen ESDM No. 12/2015 tentang Penyediaan, Pemanfaatan, dan Tata Niaga Bahan Bakar Nabati sebagai Bahan Bakar Lain.


Keberadaan PLTA, pemanfaatan biodiesel dan inovasi berkelanjutan, telah mampu menekan biaya produksi nikel dalam *matte* AS\$7.456 per ton. Nilai tersebut relatif terjaga dibanding tahun 2018 sebesar AS\$7.110 per ton.

PT Vale also uses biodiesel as a fuel for operational motor vehicles. Gradually, the Company is looking to increase the concentration of biofuels (BBN) in biodiesel by up to 20% in line with ESDM Regulation No. 12/2015 concerning Provision, Utilization and Business Administration of Biofuel as Other Fuels.

By using hydropower, biodiesel and continuous innovations, the cost of nickel in *matte* production was marginally increased in 2019 to US\$7,456 per ton from US\$7,110 per ton in 2018.

### Biaya Produksi Nikel dalam *Matte* (AS\$ per Ton)\*

#### Nickel in *Matte* Production Cost (US\$ per Ton)

Uraian Description	Tahun Year		
	2019	2018	2017
 Biaya Produksi Production Cost	7,456	7,110	6,444

\*Restatement karena perubahan metode perhitungan. [102-48]

\*Restatement due to changes in calculation method.

### Manfaat PLTA Bagi Pihak Lain

Operasional PLTA juga mendatangkan manfaat bagi warga sekitar. Selama tahun 2019 PT Vale mendistribusikan 10,7 MW dari total produksi daya listrik yang dihasilkan PLTA, untuk memasok kebutuhan listrik masyarakat Luwu Timur dan sekitarnya. Pendistribusian daya listrik tersebut dilakukan melalui PT PLN (Persero) setempat sesuai perjanjian kesepakatan dan ketentuan yang berlaku.

### Benefits for Other Parties

Hydroelectric operations also benefit local residents. During 2019 PT Vale distributed 10.7 MW of the electricity generated by the hydropower plant to supply the electricity needs for the people of East Luwu and surrounding areas. The electricity distribution is handled by PT PLN (Persero) in accordance with agreements and applicable provisions.



Keberadaan pintu air-pintu air PLTA di wilayah Petea juga berfungsi sebagai pengendali banjir bila curah hujan tinggi dan debit air sungai meluap, sehingga meminimalkan dampak pada area pertanian di daerah hulu. Dari sisi pengelolaan lingkungan, pengoperasian PLTA lebih ramah lingkungan daripada pembangkit listrik termal sehingga mengurangi emisi gas rumah kaca (GRK).

The Petea hydropower gates also serve as a flood controller during high rainfall and river water discharge overflow, thereby minimizing the impact on upstream agricultural areas. In terms of environmental management, the hydropower plant operations are more environmentally friendly than thermal power plants, thereby reducing greenhouse gas (GHG) emissions.

## Nilai Ekonomi Dihasilkan dan Didistribusikan

### Economic Value Generated and Distributed

Selama tahun 2019 PT Vale mampu mempertahankan kinerja keuangan dengan mengoptimalkan perolehan Pendapatan Usaha dan 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. [201-1]



During 2019 PT Vale maintained its financial performance by optimizing its Operating Revenue and Operating Profits. Income generated and distributed to stakeholders includes dividends, payments to the Government and investments for the community. [201-1]

Seluruh pendapatan diperoleh dari penjualan nikel dalam *matte* kepada Vale Jepang Ltd. (anggota Vale Canada Limited) dan Sumitomo Metal Mining Co.,Ltd. Sepanjang tahun 2019 PT Vale tidak pernah menerima bantuan finansial dari Pemerintah dalam bentuk keringanan pajak atau insentif lain. [201-4]

All revenue comes from the sale of nickel in *matte* to Vale Japan Ltd. (member of Vale Canada Limited) and Sumitomo Metal Mining Co., Ltd. During 2019 PT Vale did not receive any financial assistance from the Government in the form of tax breaks or other incentives. [201-4]

## Target dan Realisasi Produksi dan Penjualan Nikel dalam *Matte* Tahun 2019

### Nickel in *Matte* Production and Sales Target and Realization in 2019



Uraian Description	Satuan Unit	2019		
		Target Target	Realisasi Realization	Persentase Percentage
 Produksi Production	Ton	76,650	71,025	93%
 Penjualan Sales	Ton	77,700	72,044	93%





## Realisasi Produksi dan Penjualan Nikel dalam Matte

Actual Production and Sales of Nickel in Matte

Uraian Description	Satuan Unit	2019	2018	2017	Δ%	Δ%
		1	2	3	1:2	2:3
 Realisasi Produksi* Production Realization	Ton	71,025	74,806	76,807	(5)	(3)
 Realisasi Penjualan** Sales Realization	Ton	72,044	75,631	77,643	(5)	(3)

\* Nikel | Nickel

\*\*Kandungan rata-rata 78% nikel, 1% - 2% kobalt, serta 20% - 21% sulfur

Average content of 78% nickel, 1% - 2% cobalt, and 20% - 21% sulfur



## Realisasi Penjualan Nikel dalam Matte Kepada Pembeli

Realization of Nickel in Matte Sales to Buyers

Pelanggan Customer	2019		2018		2017	
	Ton	%	Ton	%	Ton	%
 Vale Japan (Anggota VCL) Vale Japan (VCL Member)	57,617	80	60,516	80	62,113	80
 Sumitomo Metal Mining Co.Ltd	14,427	20	15,115	20	15,529	20
Jumlah Total	72,044	100	75,631	100	77,643	100

## Nilai Ekonomi Dihasilkan dan Didistribusikan (Ribu AS\$)

Economic Value Generated and Distributed (US\$ thousand) [201-1]

Uraian Description	2019	2018	2017
<b>Nilai Ekonomi Dihasilkan</b> Economic Value Generated			
Pendapatan Revenue	782,012	776,900	629,334
Pendapatan Lain Other Income	4,759	4,552	2,763
<b>Total Pendapatan</b> Total Revenue	<b>786,771</b>	<b>781,452</b>	<b>632,097</b>
<b>Distribusi Nilai Ekonomi</b> Economic Value Distribution			
Biaya Operasi* Operating Costs*	(597,367)	(496,654)	(419,941)
Gaji Karyawan dan Tunjangan Employee Salaries and Allowances	(84,587)	(76,548)	(79,523)
Pembayaran Kepada Penyandang Dana Payments to Providers of Capital	(1,525)	(4,174)	(5,641)
Pembayaran Kepada Pemerintah* Payments to Government	(129,029)	(91,564)	(66,411)
Investasi Untuk Komunitas Community Investments	(3,456)	(3,020)	(2,136)
<b>Total Distribusi Nilai Ekonomi</b> Total Economic Value Distribution	<b>(815,864)</b>	<b>(671,960)</b>	<b>(573,652)</b>
<b>Nilai Ekonomi Ditahan</b> Retained Economic Value			
<b>Jumlah</b> Total	<b>(29,193)</b>	<b>109,492</b>	<b>58,445</b>

### Keterangan:

- Kinerja ekonomi Perusahaan disampaikan secara konsolidasi sesuai dengan laporan keuangan yang diaudit, oleh karena itu tidak disampaikan berdasarkan wilayah atau area atau produk.
- Perhitungan nilai ekonomi yang disajikan pada Laporan Keberlanjutan menggunakan metode cash basis sesuai yang disarankan pada GRI Standard, sehingga angka yang disajikan berbeda dengan Audited Financial Statement.

### Note:

- The Company's economic performance is consolidated in accordance with the audited financial statements, therefore it is not submitted based on region, area or product.
- Calculation of economic values presented in the Sustainability Report uses the cash basis method as suggested in the GRI Standard, so the numbers presented differ from the Audited Financial Statements.

PT Vale belum mengungkapkan target kinerja keuangan dikarenakan kebijakan dari perusahaan. Selain itu, PT Vale tidak memiliki program khusus terkait literasi dan inklusi keuangan. Namun, Perseroan melalui Yayasan Pendidikan Sorowako mengadakan program edukasi keuangan bekerja sama dengan bank, serta melalui Ikatan Keluarga Vale Indonesia (IKVI) menyelenggarakan seminar pengelolaan keuangan bekerja sama dengan Central Asia Raya (CAR).

PT Vale has not revealed its financial performance target based on the Company's policy. In addition, PT Vale does not have a special financial literacy and inclusion program. However, the Company, through the Sorowako Education Foundation, held a financial education program in collaboration with banks, and through the Vale Indonesia Family Association (IKVI) held a financial management seminar in collaboration with Central Asia Raya (CAR).





## Kontribusi Pada Penerimaan Negara

Salah satu bentuk distribusi nilai ekonomi adalah pembayaran pajak dan PNBP kepada Pemerintah yang dilakukan setiap tahun. Melalui amandemen kontrak karya pada tahun 2014, PT Vale menaikkan setoran iuran produksi (royalti) per tahun menjadi 2% dari semula 0,6%, dengan opsi kenaikan menjadi 3% ketika harga nikel mencapai AS\$21.000 per Ton. Secara keseluruhan, nilai ekonomi yang didistribusikan kepada Pemerintah dalam bentuk pembayaran pajak dan PNBP pada tahun 2019 mencapai AS\$129.029 juta, meningkat 40,9% dibanding tahun 2018 sebesar AS\$91,6 juta. [201-1]

## Contribution To State Revenue

One form of economic value distributed is annual taxes and PNBP payments to the Government. Through an amendment to the work contract in 2014, PT Vale raised its annual production contribution fees (royalties) to 2% from the original 0.6%, with an option to increase to 3% when the nickel price reached US\$21,000 per ton. Overall, the economic value distributed to the Government in the form of tax payments and PNBP in 2019 reached US\$129,029 million, an increase of 40.9% compared to US\$91.6 million in 2018. [201-1]

## Kontribusi Terhadap Negara (Ribu AS\$)

Contributions to the State (US\$ Thousand) [201-1]

Uraian Description	2019	2018	2017
<b>Komponen Penerimaan Negara Bukan Pajak (PNBP)</b> Components of Non-tax State Revenue (PNBP)			
Iuran Produksi Production Royalties	15,860	15,715	12,636
Iuran Tetap Wilayah Kontrak Karya Land Rent for Contract of Work Areas	472	474	474
PNBP Lainnya Other Non-tax State Revenue	11,984	146	65
<b>Jumlah</b> Total	<b>28,316</b>	<b>16,335</b>	<b>13,174</b>
<b>Komponen Pajak dan Retribusi</b> Components of Taxes and Levies			
Pajak Pertambahan Nilai Value Added Tax	868	827	1,199
Pajak Bumi dan Bangunan Land and Building Tax	2,379	1,899	1,990
Pajak Penghasilan Karyawan Employee Income Tax	11,917	10,066	9,821
Pajak Penghasilan Badan Corporate Income Tax	55,430	36,349	15,024
Pajak, Retribusi dan Hibah Daerah* Regional Taxes, Levies and Grants*	20,784	19,984	19,233
Pemotongan Pajak Penghasilan Pihak Ketiga Third Party Income Tax Withholding	4,467	3,774	3,596
Bea Masuk Duties	4,868	2,330	2,374
<b>Jumlah</b> Total	<b>100,713</b>	<b>75,230</b>	<b>53,237</b>
<b>PNBP + Komponen Pajak dan Retribusi (Ribu USD)</b> PNBP + Tax Component and Levies (Thousand USD)			
<b>Jumlah</b> Total	<b>129,029</b>	<b>91,564</b>	<b>66,411</b>

Keterangan:

\* Sesuai Peraturan Pemerintah No.2 Tahun 2012 Tentang Hibah Daerah

Note:

\* In accordance with Government Regulation No.2 of 2012 regarding Regional Grants



## Pembayaran Imbal Jasa Pekerjaan

Besaran imbal jasa pekerjaan yang dibayarkan Perusahaan, tidak dibedakan antara karyawan laki-laki dengan karyawan perempuan. PT Vale memiliki ketentuan imbal jasa pekerjaan bagi karyawan, yang telah disesuaikan dengan ketentuan yang berlaku, termasuk Upah Minimum Kabupaten (UMK) Luwu Timur. Besaran imbal jasa pekerjaan yang dibayarkan kepada pekerja di tingkat terendah pada tahun 2019, mencapai 113% dari UMK di Kabupaten Luwu Timur. Pada tahun 2019, PT Vale mengeluarkan dana sebesar Rp807.302 juta (*equivalent take home pay*) yang terdiri dari komponen 65,4% upah (gaji dan tunjangan), 51% gaji, 14,1% tunjangan (*living and housing allowance*). [406-1][202-1]

## Payment of Employee Benefits

The Company does not distinguish between male employees and female employees, and PT Vale provides employment rewards to employees, adjusted to the applicable regulations, including the Regency Minimum Wage (DMW) of East Luwu. The minimum rate paid to workers at the lowest level in 2019 was 113% of the East Luwu Regency DMW. In 2019, PT Vale's take-home pay amounted to Rp807,302 million, where 65.4% of this total was made up of salaries (51%), and living and housing allowances (14.1%). [406-1][202-1]

## Program Pengembangan Berkelanjutan

### Sustainable Development Program



PT Vale menargetkan peningkatan kapasitas produksi menjadi 90.000 ton nikel pada tahun 2023. Untuk merealisasikan target tersebut, Perusahaan mengintensifkan program Pengembangan Berkelanjutan atau Continuous Improvement (CI). Proyek-proyek tersebut mencakup inisiatif perbaikan dan peningkatan kinerja alat operasi, sistem dan budaya kerja yang lebih efektif dan efisien dengan tetap mengutamakan keselamatan dan kesehatan kerja. Program CI melibatkan seluruh komponen Perusahaan, dan dimaksudkan agar Perusahaan dapat beroperasi lebih efisien, meningkatkan reliability, dan mengantisipasi pengeluaran yang tidak diperlukan.

PT Vale memiliki model yang dikenal sebagai Vale Production System (VPS). Model ini fokus dalam memberikan hasil melalui implementasi kebijakan, praktik, serta standar yang mendalam dan komprehensif. Oleh karenanya, PT Vale menyediakan operasi yang aman dan bertanggung jawab terhadap lingkungan yang menjamin integritas aset dan karyawan kami. VPS memperkuat budaya organisasi Perseroan melalui pengembangan sumber daya manusia, standarisasi praktik terbaik, disiplin operasional, dan kepatuhan terhadap rutinitas.

PT Vale plans to increase its production capacity to 90,000 tons nickel by 2023. To realize this target, the Company is intensifying its Continuous Improvement (CI) program. This project includes initiatives to repair and improve the performance of operating equipment, systems and work culture to be more effective and efficient while still prioritizing occupational safety and health. The CI program involves all areas of the Company so that they operate more efficiently, with increased reliability, and anticipate unnecessary expenses.

Vale's management model is known as VPS (Vale Production System). This model focuses on delivering results through deep and comprehensive implementation of policies, practices and standards. This enables Vale to provide a safe and environmentally responsible operation that ensures the integrity of our assets and people. VPS strengthens PT Vale's organizational culture through people development, standardization of best practices, operational discipline and compliance with routine.





## Kaizen

"Kaizen" merupakan program yang dilaksanakan PT Vale untuk mewujudkan perbaikan berkesinambungan (*continuous improvement*). Pelaksanaan "Kaizen" menjadi bagian dari penerapan VPS. Di dalam VPS terdapat komitmen perubahan budaya keberlanjutan dengan mendorong setiap orang untuk mengeliminasi segala hal yang tidak diperlukan (*eliminate waste*). Tujuan akhirnya adalah proses produksi yang lebih ramping demi mengejar keunggulan operasional.

PT Vale mengadakan Kaizen Competition 2019 dengan tema "Kaizen: Perbaikan kecil untuk menghasilkan hal besar". Kompetisi bertujuan mengubah *mindset* sekaligus bentuk *reward* kepada karyawan dan berhasil menjangkit 370 ide Kaizen dari grup karyawan di berbagai departemen, baik di area *Operation* maupun *Corporate Support*.

## Kaizen

PT Vale implemented a "Kaizen" program aimed at creating continuous improvements. "Kaizen" is part of the VPS. In the VPS there is a commitment to change the sustainability culture by encouraging people to eliminate waste. The ultimate goal is to create a leaner production process to deliver operational excellence.

In 2019, PT Vale held a Kaizen Competition with the theme "Kaizen: Small improvements to produce big things". The competition aim was to change the mindset as well as reward employees, and 370 Kaizen ideas from employee groups in various departments were received, both from the Operations and Corporate Support areas.



## Tanggung Jawab Produk

### Product Responsibility

#### Standarisasi Keamanan Produk

PT Vale berkomitmen menjaga keamanan dan keselamatan proses produksi maupun penggunaan produk nikel dalam *matte*. Selama tahun 2019 PT Vale tidak menerima pengaduan terkait keluhan kesehatan dan keselamatan karena penggunaan produk nikel dalam *matte*. [416-2]

PT Vale telah menerapkan Sistem Produksi Vale Terpadu yang merupakan standarisasi dalam mengevaluasi keamanan dan mutu setiap produk (100%) yang dimulai dari tingkat operasional, meliputi:

1. Bidang utama: karyawan, operasi, perawatan, dan manajemen.
2. Bidang Pendukung: kesehatan, keselamatan, serta lingkungan hidup.

Proses produksi dan produk nikel dalam *matte* PT Vale juga telah memenuhi ketentuan-ketentuan yang mengatur keamanan dan keselamatan: [416-1]

- *Restriction of Hazardous Substance* (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.

Nikel dalam *matte* dikirim ke Jepang dalam kemasan khusus dengan kapasitas 3,3 Ton. Pada bagian luar kemasan dilengkapi label yang menjelaskan spesifikasi produk dan cara penanganan. Selama tahun 2019 tidak ada keluhan yang disampaikan pembeli terkait ketidaksesuaian informasi pada label tersebut. [417-1][417-2]

#### Product Security Standardization

PT Vale is committed to maintaining the security and safety of the production process and the use of nickel in *matte* products. During 2019, PT Vale did not receive any complaints related to health and safety due to the use of its nickel in *matte* products. [416-2]

PT Vale has implemented the standardized Vale Integrated Production System for evaluating the safety and quality of each product (100%) starting from the operational level, including:

1. Main areas: employees, operations, maintenance, and management.
2. Supporting areas: health, safety, and environment

PT Vale's nickel in *matte* production process and products have also fulfilled the provisions governing security and safety: [416-1]

- *Restriction of Hazardous Substance* (RoHS) or rules for limiting hazardous substances in the manufacturing industry and electronic equipment, as adopted by the European Union in 2006.
- ISO 9001: 2008 certification regarding the Quality Management System, and ISO 17025:2008 regarding Testing and Calibration Laboratories.

Nickel in *matte* is shipped to Japan in special packaging with a capacity of 3.3 tons. On the outside of the packages are labels explaining the product specifications and how to handle it. During 2019 there were no complaints made by buyers regarding information incompatibility on the labels. [417-1][417-2]

PT Vale berkomitmen untuk memberikan layanan yang setara kepada setiap pelanggan. Selain itu, selama tahun 2019 tidak ada produk yang ditarik kembali karena sudah memiliki kontrak jangka panjang dengan standar yang telah ditetapkan.

PT Vale is committed to providing equal services to all customers. During 2019 there were no products recalled as they already have long-term contracts with set standards.





## Pengelolaan Keamanan Bendungan

Sejak tahun 1979 PT Vale telah mengoperasikan PLTA. Desain dan proses pembangunan bendungan sesuai desain kegempaan (*seismic design*) yang mengacu pada *Maximum Credible Earthquake* (MCE). PT Vale juga melakukan pembaharuan perizinan dan pengawasan keamanan bendungan sesuai regulasi. Perseroan telah melakukan studi dan konsultasi penerapan Rencana Tindak Darurat (RTD) sebagai antisipasi terjadinya bencana dari operasionalisasi ketiga PLTA, seperti diatur dalam Undang-Undang No.24 Tahun 2007 Tentang Penanggulangan Bencana; Peraturan Pemerintah (PP) No.37 Tahun 2010 Tentang Bendungan dan PP No.21 Tahun 2008 Tentang Penyelenggaraan Penanggulangan Bencana.

PT Vale bersama Pemerintah Kabupaten Luwu Timur telah dua kali menyelenggarakan RTD ini. Pertama, pada 13 Desember 2018 dan kedua, pada 11 Desember 2019 di Malili yang mengikutsertakan lima dusun di Desa Wewangriu dan Kelurahan Malili. PT Vale juga memastikan adanya izin operasi PLTA/bendungan dan sertifikat keamanan bendungan yang diperoleh dari Komisi Keamanan Bendungan.

## Dam Security Management

Since 1979 PT Vale has operated hydroelectric power plants. The design and process of building hydroelectric power plant dams is based on seismic design, and refers to Maximum Credible Earthquake (MCE). PT Vale also renewed its permits and supervised the dams' safety in accordance with regulations. The Company carried out studies and consultations regarding its Emergency Action Plan (EAP), for anticipating disasters in the three hydropower plants operations, as laid down in the 2007 Law No.24 concerning Disaster Management; the 2010 Government Regulation (PP) No.37 concerning Dams; and the 2008 PP No. 21 concerning Disaster Management Implementation.

PT Vale with the Government of East Luwu Regency has twice organized EAP activities. Firstly, on December 13, 2018 and secondly, on December 11, 2019 in Malili, and covered five hamlets in the Wewangriu and Malili Villages. PT Vale also ensures that hydropower / dam operating permits and dam safety certificates are obtained from the Dam Safety Commission.



Rencana Tindak Darurat (RTD) merupakan aktivitas wajib yang perlu dilaksanakan PT Vale selaku pemilik dan operator 3 PLTA/bendungan di Blok Sorowako. Kegiatan ini merupakan rekomendasi Komisi Keamanan Bendungan sesuai dengan Peraturan Menteri Pekerjaan Umum Nomor 72/PRT/1997 tentang Keamanan Bendungan dan Dokumen Panduan RTD Bendungan Seri Sungai Larona yang telah disetujui dan ditandatangani PT Vale, Balai Besar Wilayah Sungai Pompengan Jeneberang (BBWS-PJ), dan Pemerintah Kabupaten Luwu Timur pada Juli 2017.

EAP is a mandatory activity that has to be conducted by PT Vale as the owner and operator of 3 hydropower/dams in the Sorowako Block. This activity follows the Dam Safety Commission recommendation in accordance with the Ministry of Public Works Regulation No. 72/PRT/1997 concerning Dam Safety and the Seri Sungai Larona Dam EAP Guidance Documents, and was approved and signed by PT Vale, the Balai Besar of Sungai Pompengan Jeneberang Region (BBWS-PJ), and the East Luwu Regency Government in July 2017.



# KINERJA SOSIAL

## SOCIAL PERFORMANCE

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### Kesehatan dan Keselamatan Kerja (K3)

Occupational Health  
and Safety (OHS)









## Pendekatan Manajemen Management Approach

[103-1][103-2][103-3]

Sebagai perusahaan pertambangan dan pengolahan mineral, PT Vale taat menerapkan praktik-praktik terbaik kesehatan dan keselamatan kerja (K3).

As a mineral mining and processing company, PT Vale is committed to implementing the best occupational health and safety (OHS) practices.



## Kebijakan Policy

Kepmen 1827 K/30/MEM/2018 Lampiran IV Penerapan Sistem Manajemen Keselamatan Pertambangan Mineral dan Batubara; Sistem Manajemen Keselamatan Pertambangan Mineral dan Batubara (SMKP Minerba)

Ministerial Decree 1827 K/30/MEM/2018 Appendix IV Implementation of Mineral and Coal Mining Safety Management System; Mineral and Coal Mining Safety Management System (Minerba SMKP)



## Komitmen Commitment

Nihil kecelakaan kerja dan meminimalkan penyakit akibat kerja (PAK).

Achieving zero workplace accidents and minimizing occupational diseases (PAK).



## Realisasi Realization:

- Nihil kecelakaan kerja bersifat fatal selama tahun 2019.
- Pencapaian 87 hari tanpa *lost time injury* (LTI) per 31 Desember 2019, setara 4.881.030 jam kerja.
- Zero workplace fatal accidents in 2019.
- 87 days without lost-time injury (LTI) by 31 December 2019, equivalent to 4,881,030 working hours.





### Sumber Daya Resources

- 3.044 karyawan PT Vale dan 6.460 pekerja pekerja kontraktor.
  - RS INCO yang dikelola pihak ketiga.
  - 3,044 PT Vale employees and 6,460 contractors.
  - INCO Hospital managed by a third party.
- 



### Inisiatif khusus Tahun 2019 Special 2019 Initiative:

- Memo Kepala Teknik Tambang (KTT) terkait kewajiban **full medical check-up** bagi karyawan Kontraktor.
  - Head of Mining Technical (KTT) memo related to full medical check-up obligations for Contractor employees.
- 



### Evaluasi Evaluation

- Evaluasi penerapan K3 dilaksanakan setiap tahun dan menjadi tanggung jawab Kepala Teknik Tambang bersama **Chief Operating Officer (COO)**.
- The OHS implementation evaluation is carried out annually and is the responsibility of the Head of Mining Technical together with the Chief Operating Officer (COO).





## Kepatuhan dan Pelaksanaan K3 [403-1]

PT Vale senantiasa mematuhi ketentuan yang mengatur penerapan K3 pada operasi pertambangan, termasuk Undang-Undang No.1 Tahun 1970 Tentang Keselamatan Kerja. Untuk mendukung penerapan K3, PT Vale telah menerbitkan ketentuan-ketentuan internal sebagai panduan bersama, di antaranya Contractor Safety Management System (CSMS) atau Sistem Manajemen Keselamatan Kerja untuk Kontraktor. [403-7]

Setiap tahun Perusahaan melakukan audit kepatuhan K3. Pelaksanaan audit yang mengacu pada SMKP dan tingkat kepatuhan IMS–*Environment Health and Safety Management System*. Pada tahun 2019 audit dilaksanakan oleh Tim Internal Audit PT Vale, dengan hasil tingkat kepatuhan Sistem Manajemen Keselamatan Pertambangan Mineral dan Batubara sebesar 78,4%. Pencapaian tersebut turun dibanding tahun 2018 sebesar 89,9%. Hal tersebut dipengaruhi karena adanya penyesuaian terhadap berlakunya Keputusan Direktur Jenderal Minerba dan Batubara No 185. K/37.04/DJB/2019 tentang Petunjuk Teknis Pelaksanaan Keselamatan Pertambangan dan Pelaksanaan, Penilaian, dan Pelaporan Sistem Manajemen Keselamatan Pertambangan Mineral dan Batubara.

Penerapan K3 dimulai dengan identifikasi bahaya utama dan kemudian dikelola dengan sistem/ perangkat yang melekat dalam kegiatan operasional sehari-hari, serta mencakup seluruh karyawan PT Vale dan pekerja kontraktor. Kegiatan-kegiatan tersebut dilakukan melalui *Job Safety Analysis (JSA)*, *Safety Talks*, *Critical Activity Requirements (CAR)*, *General Induction Program (GIP)*, *Site Specific Induction Program (SSIP)* dan *Mandatory Audits/Inspections*. [403-2][403-8]

Penerapan K3 dijalankan dengan melibatkan partisipasi karyawan dan pekerja kontraktor. [403-4]

- Setiap tahun PT Vale menyelenggarakan peringatan Bulan K3 Nasional. Tema Bulan K3 Nasional tahun 2019 adalah: Mewujudkan Kemandirian Pekerja berbasis Budaya Sehat dan Selamat dalam Mendukung Produktivitas dengan Aman.

## OHS Compliance and Implementation [403-1]

PT Vale has always adhered to the Government's regulations governing the implementation of OHS in mining operations, including the 1970 Law No. 1 regarding Occupational Safety. To support the application of OHS, PT Vale has issued internal provisions as a joint guide, including the Contractor Safety Management System (CSMS). [403-7]

Every year the Company conducts OHS compliance audits that refer to the SMKP and the level of compliance to the IMS – Environment Health and Safety Management System. In 2019, the audit was carried out by PT Vale's Internal Audit Team, resulting in a compliance level for the Mineral and Coal Mining Safety Management System of 78.4%, a decrease from 89.9% in 2018. This was influenced by adjustments made in line with the Director-General of Minerals and Coal Decree No. 185. K/37.04/DJB/2019 concerning Technical Guidelines for Implementation of Mining Safety and Implementation, Assessment and Reporting of Mineral and Coal Mining Safety Management System.

The application of OHS starts with identifying the main hazards and then managing them through systems/devices used in the daily operational activities, and includes all PT Vale employees and contractors. These activities are carried out through Job Safety Analysis (JSA), Safety Talks, Critical Activity Requirements (CAR), General Induction Programs (GIP), Site Specific Induction Programs (SSIP) and Mandatory Audits / Inspections. [403-2] [403-8]

OHS implementation is carried out and involves the participation of employees and contractors. [403-4]

- Every year PT Vale commemorates the National OHS Month. The theme for 2019 was: Realizing Workers Independence Based on a Health and Safety Culture in Supporting Productivity Safely.





- Karyawan PT Vale melalui serikat pekerja, turut menyusun Perjanjian Kerja Bersama (PKB) yang memuat antara lain pasal-pasal tentang K3.
- Instruksi Direksi: INS-003-VIEHS Tentang Instruksi Terkait Akuntabilitas Untuk Keselamatan Kerja dan Perilaku, dan menjadikan pasal kepatuhan K3 sebagai bagian penilaian kinerja (KPI).
- Menyelenggarakan pendidikan dan pelatihan (diklat) Auditor Sistem Manajemen Keselamatan Pertambangan Mineral dan Batubara (SMKP Minerba). Tahun 2019 diklat diikuti 61 karyawan PT Vale dan 58 pekerja kontraktor, sehingga secara keseluruhan ada 100 karyawan PT Vale dan 84 pekerja kontraktor yang telah mengikuti diklat. [403-5]
- PT Vale's employees, through the trade unions, helped to compile a Collective Labor Agreement (CLA) that included OHS.
- Board of Directors' Instruction: INS-003-VIEHS regarding Accountability Instructions for Work Safety and Behavior, and making the OHS compliance article a part of the performance appraisal (KPI).
- Holding education and training for Auditors on the Management of Mineral and Coal Mining Safety Systems (SMKP Minerba). In 2019 the training was attended by 61 PT Vale employees and 58 contractors raising the total number of training participants for PT Vale employees to 100, and contractors to 84. [403-5]

Pelatihan Training	Tahun Year	PT Vale	Kontraktor Contractors	Jumlah Total
SMKP (Implementasi & Auditor) SMKP (Implementation & Auditor)	2017	11	9	20
SMKP (Implementasi & Auditor) SMKP (Implementation & Auditor)	2018	9	17	26
SMKP-KO (Implementasi) SMKP-KO (Implementation)	2019	61	58	119
Jumlah Total		81	84	165





Pada tahun 2019, PT Vale memperbarui beberapa aturan terkait keselamatan. Perseroan juga mengambil langkah untuk melibatkan keluarga karyawan dalam kampanye “*Fatigue Management System*” agar menyadari pentingnya bekerja dengan aman. Selain itu, PT Vale mengimplementasikan Hazard Identification and Risk Assessment (HIRA) yang komprehensif di seluruh operasi Sorowako untuk pengawasan dan mitigasi.

In 2019, PT Vale updated several safety related regulations that everyone must obey to prevent major accidents. The Company also took steps to involve employees' families in the “*Fatigue Management System*” campaign to promote the importance of working safely. PT Vale has also implemented a comprehensive Hazard Identification and Risk Assessment (HIRA) for all Sorowako operations for supervision and mitigation.

### Kinerja Penerapan K3 [403-9]

Selama tahun 2019 tercatat satu peristiwa kecelakaan terjadi ketika bus angkutan karyawan PT Vale mengalami kecelakaan di jalan poros Wasuponda-Sorowako, Luwu Timur, yang masuk dalam kategori *commuting accident*. Kecelakaan terjadi saat bus yang membawa 23 karyawan dalam perjalanan pulang sehabis bekerja shift malam. Akibat peristiwa tersebut, seorang karyawan PT Vale meninggal dunia dan beberapa lainnya mengalami luka-luka sehingga dirawat di RS INCO Sorowako.

Perseroan menindaklanjuti peristiwa ini dengan melakukan beberapa upaya pencegahan:

- Menggalakkan *safe commuting* dengan mewajibkan pemakaian *safety belt* untuk semua penumpang.
- Melakukan *review system* transportasi karyawan, khususnya penggunaan bus.
- Inspeksi kendaraan transportasi karyawan kontraktor dan PT Vale secara berkala.
- Penerapan kontrol kecepatan kendaraan menggunakan sistem berbasis GPS dan *Fatigue Detection System* (G Track & Guardian).
- Penambahan persyaratan fitur *Auto Retarder Brake System* pada kontrak pengadaan transportasi bus karyawan.

### OHS Application Performance [403-9]

During 2019, an accident occurred when a PT Vale employee transport bus crashed on the Wasuponda-Sorowako pivot road in East Luwu, which is included in the commuting accident category. The accident happened when a bus was carrying 23 employees on their way home after working the night shift. As a result of this incident, one PT Vale employee passed away, and several others suffered injuries and were treated at INCO Sorowako Hospital.

The Company followed up this event by taking several preventative measures:

- Promoted safe commuting by requiring safety belts to be worn by all passengers.
- Reviewed the employee transportation systems, specifically the use of buses.
- Periodically inspected the transportation vehicles for contractors and PT Vale employees.
- Installed a vehicle speed control application using a GPS-based system and a *Fatigue Detection System* (G Track & Guardian).
- Added requirements for an *Auto Retarder Brake System* feature on employee bus transportation procurement contracts.





## Tingkat dan Jumlah Peristiwa Kecelakaan Kerja

Rate and Number of Workplace Accidents

Area Area	Tingkat Kecelakaan Kerja Workplace Accident Rate	2019			2018			2017		
		Pria Male	Wanita Female	Tingkat Rate	Pria Male	Wanita Female	Tingkat Rate	Pria Male	Wanita Female	Tingkat Rate
Sorowako	Ringan Medical Aid	6	0	0.29	9	0	0.45	11	0	0.63
	Sedang dan Berat Lost Time Injury & Disabling Injury	4	0	0.25	1	0	0.05	4	0	0.23
	Fatal Fatality	0	0	0	0	0	0	0	0	0
Bahodopi	Ringan Medical Aid	0	0	0	0	0	0	0	0	0
	Sedang dan Berat Lost Time Injury & Disabling Injury	0	0	0	0	0	0	0	0	0
	Fatal Fatality	0	0	0	0	0	0	0	0	0
Pomalaa	Ringan Medical Aid	0	0	0	0	0	0	0	0	0
	Sedang dan Berat Lost Time Injury & Disabling Injury	0	0	0	0	0	0	0	0	0
	Fatal Fatality	0	0	0	0	0	0	0	0	0
Jumlah Total		10	0		10	0		15	0	
		10			10			15		

## Pencapaian Lain Kinerja Pelaksanaan K3

Other OHS Implementation Performance Achievements

Uraian Description	Kegiatan Activities	Tingkat Konsistensi* Consistency Level		
		2019	2018	2017
Budaya Keselamatan Safety Culture	Aksi Keselamatan Individu Personal Safety Action	90%	83%	72%
	Konsistensi Analisa Risiko Aktivitas Individu Personal Activity Risk Analysis Consistency	80%	84%	87%
Standardisasi K3 OHS Standards	<ul style="list-style-type: none"> <li>ISO 14001</li> <li>Sistem Manajemen Keselamatan Pertambangan Minerba (SMKP-Minerba) Minerba Mining Safety Management System (SMKP-Minerba)</li> <li>Sistem Manajemen Terintegrasi – IMS Integration Management Systems - IMS</li> <li>New Major Hazard Standard (MHS) New MHS (Major Hazard Standard)</li> <li>New Golden Rules New Golden Rules</li> </ul>			

\* Restatement karena perubahan metode perhitungan. [102-48]

\* Restatement due to changes in calculation methods.







## *We have a dream – Housekeeping Improvement*

Sejak pertengahan 2018 PT Vale melakukan kegiatan perbaikan dan peningkatan kualitas lingkungan kerja di seluruh area Perusahaan melalui proyek "We have a dream". Proyek ini merupakan ajakan untuk menciptakan lingkungan kerja yang jauh lebih aman, nyaman, resik, rapi, modern demi menunjang produktivitas, kesehatan, dan keselamatan kerja.

Kampanye *We Have a Dream* juga digaungkan melalui media sosial. PT Vale mengadakan kontes foto #PTVIWeHaveADream yang berlangsung pada 5 April-5 Juli 2019 dan terbuka bagi seluruh karyawan PT Vale. Sekitar 70 unggahan berhasil dijaring sepanjang periode kontes. Mereka terpilih karena memenuhi seluruh kriteria foto favorit, yaitu foto sesuai dengan tema kampanye #PTVIWeHaveADream.

*Process Plant Housekeeping Project* sebagai *benchmark* diresmikan pada 14 Februari 2019 dan akan berjalan dalam waktu tiga tahun hingga 2021. Secara garis besar, target utamanya adalah perbaikan sistem penangkap debu, perbaikan dan pengecatan struktur pabrik, serta perbaikan sistem jalan dan drainase yang dibagi dalam fase jangka pendek, menengah dan panjang.

## *We have a dream – Housekeeping Improvement*

Since mid-2018, PT Vale has carried out activities to improve and enhance the quality of the working environment in all Company areas through the "We have a dream" project. This project invites everyone to create a much safer, more comfortable, clean, neat, modern work environment to support productivity, health, and work safety.

The "We Have a Dream" campaign was also promoted through social media. PT Vale held a #PTVIWeHaveADream photo contest on April 5-July 5, 2019, open to all PT Vale employees. Around 70 uploads were made during the contest period, and the best were chosen as they met all of the favorite photo criteria based on the #PTVIWeHaveADream campaign theme.

As part of the "We Have a Dream" campaign, we established the Process Plant Housekeeping Project on February 14, 2019, which will run until 2021. The main areas of focus for the Project will be to improve the dust catching system, repair and paint the factory structures, as well as improve the roads and drainage systems, divided into short, medium and long-term phases.



## Perlindungan Bagi Pekerja Berisiko Tinggi [403-10]

Perusahaan memberikan perhatian khusus kepada karyawan dan pekerja kontraktor yang bekerja dengan risiko tinggi terhadap keselamatan kerja maupun kesehatan kerja. Dari hasil identifikasi yang dilakukan tahun 2019, ada 19 jenis pekerjaan yang memiliki risiko tinggi terhadap keselamatan karyawan maupun pekerja kontraktor. Selain itu ada 20 jenis pekerjaan dengan risiko tinggi terhadap kesehatan karyawan maupun pekerja kontraktor.

## Protection for High Risk Workers [403-10]

The Company pays special attention to employees and contractor workers whose work involves high occupational safety and health risk. In 2019, 19 high-risk areas of work were identified as having a high risk to employees and contractors' safety, and 20 high-risk areas of work identified as having a high risk to employees and contractors' health.

### Jenis Pekerjaan Berisiko Tinggi K3

High Risk OHS Areas of Work



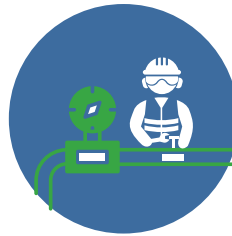
#### Bekerja di Ketinggian Working at heights

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



#### Peledakan Blasting

- Mengimplementasikan 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 monitoring  
Monitoring



#### Bekerja di Area Paparan Panas Working in Heat Exposure Areas

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







### Layanan Kesehatan Kerja [403-3]

PT Vale mewajibkan pemeriksaan kesehatan (medical check up) berkala kepada karyawan maupun pekerja kontraktor. Pemeriksaan dilakukan di RS INCO di Sorowako. PT Vale juga melakukan promosi kesehatan kepada karyawan maupun pekerja kontraktor. [403-6]

### Occupational Health Services [403-3]

PT Vale requires all employees and contractor workers undergo periodic medical check-ups. Examinations are carried out at the INCO Hospital in Sorowako. [403-6]

### Kegiatan Promosi Kesehatan Tahun 2019

#### Health Promotion Program Activities in 2019

Nama Program Program Name	Keterangan dan Jumlah Peserta Information and Number of Participants		
	PT Vale PT Vale	Kontraktor Contractors	Jumlah Total
Bahaya rokok Dangers of Smoking	82	115	197
Pencegahan penyakit jantung koroner Prevention of Coronary heart disease	1,383	167	1,550
Senam bugar Aerobics	667	300	967
Gerakan karyawan hidup sehat Healthy Employee Movement	2,362	0	2,362
Pencegahan stunting (seminar Kesehatan Bulan K3 Nasional 2019) Stunting Prevention (2019 National OHS Month Health seminar)		707	
Konseling Individu Individual Counseling	131	0	131
Paparan debu di tempat kerja Dust Exposure at Work	97	0	97
Pencegahan <i>lower back pain</i> Prevention of Lower Back Pain	977	0	977
Konseling dan testing sukarela HIV Counseling and voluntary HIV testing	132	3,529*	3,661

\* Kegiatan bersama masyarakat  
\* Activities with the communities





**KINERJA SOSIAL**

SOCIAL PERFORMANCE

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Pemberdayaan  
Masyarakat

Community Empowerment







## Pendekatan Manajemen Management Approach

[103-1][103-2][103-3]

PT Vale berkomitmen memberdayakan masyarakat di sekitar wilayah operasi dan meningkatkan kesejahteraan mereka.

PT Vale is committed to empowering communities around its operating areas and to improving their welfare.



## Komitmen Commitment

Program Pengembangan dan Pemberdayaan Masyarakat (PPM) tahun 2018 – 2022

Community Development and Empowerment Program (PPM) for 2018 - 2022



## Kebijakan Policy

- Undang-Undang No. 40 Tahun 2007, Tentang Perseroan Terbatas.
- Undang-Undang No. 4 Tahun 2009, Tetang Pertambangan Mineral dan Batubara.
- Peraturan Pemerintah No. 47/2012 Tanggung Jawab Sosial dan Lingkungan Perseroan Terbatas Peraturan Menteri ESDM No. 25 Tahun 2018 Tentang Pengusahaan Pertambangan Mineral Dan Batubara.
- 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.
- 2007 Law No. 40 concerning Limited Liability Companies.
- 2009 Law No. 4 concerning Mineral and Coal Mining.
- Government Regulation No. 47/2012 concerning Social and Environmental Responsibilities of Limited Liability Companies.
- Minister of Energy and Mineral Resources 2018 Regulation No. 25 concerning Concessions for -Mineral and Coal Mining.
- Minister of Energy and Mineral Resources 2018 Regulation No. 26 concerning Good Mining Practices and Minerba Mining Supervision.
- Minister of Energy and Mineral Resources Decree No. 1824K/30/MEM/2018 concerning Guidelines for Implementation of Community Development and Empowerment.







## Realisasi

### Realization:

Perkiraan jumlah penerima manfaat di wilayah pemberdayaan di Blok Sorowako 38 Desa sebesar 38.277 orang

Estimated number of beneficiaries in the Sorowako Block empowerment area is 38 villages and 38,277 people



## Sumber Daya

### Resources

- Alokasi dana PPM tahun 2019 sebesar AS\$3.455.673
- Sinergi dengan pemerintah daerah dan masyarakat.
- In 2019, US\$3,455,673 was allocated for PPM funds
- Synergy with local government and the communities.



## Inisiatif Khusus Tahun 2019

### Special 2019 Initiatives

- Mendorong pola kemitraan tiga pilar pada pelaksanaan program melalui tim koordinasi program pengembangan masyarakat kabupaten Luwu Timur (masyarakat, pemerintah dan perseroan).
- Memfasilitasi pendampingan teknis Hilirisasi Industri Olahan Komoditi Pangan, Industri Kreatif Dan Industri Pariwisata.
- Memfasilitasi pendampingan teknis budidaya pertanian sehat ramah lingkungan berkelanjutan.

- Memfasilitasi pendampingan teknis usaha kesehatan bersumberdaya masyarakat berbasis herbal.
- Revitalasi usaha ekonomi masyarakat terdampak langsung kegiatan operasi tambang melalui kegiatan usaha kecil menengah.
- Relying upon the three pillar partnership structure to implement programs through the Luwu Timur regency community development program coordination team (community, government and company)
- Facilitating technical assistance for downstream industries for Processed Food Commodities, Creative Industries and Tourism Industries.
- Facilitating technical assistance for sustainable and environmentally friendly agriculture.
- Facilitating technical assistance for herbal-based community-based health efforts.
- Revitalizing community economic activities directly affected by mining operations through support for small and medium businesses.



## Evaluasi

### Evaluation

- Pelaporan berkala dan publikasi kepada pemangku kepentingan eksternal.
- Evaluasi internal oleh Fungsi Social Development Program di External Relations & Corporate Affairs Department sebagai penanggung jawab.
- Periodic reporting and publications to external stakeholders.
- Internal evaluation by the Social Development Program Function of the External Relations & Corporate Affairs Department.





## Program Pengembangan dan Pemberdayaan Masyarakat – Program Pengembangan Kawasan Perdesaan Mandiri (PPM-PKPM) Kawasan Pertanian Terpadu Kecamatan Towuti.

PPM-PKPM merupakan transformasi dan pengembangan Program Sosial PT Vale sebelumnya yang bernama Program Terpadu Pemberdayaan Masyarakat (PTPM). Implementasi PKPM difokuskan berdasarkan potensi dan sumber daya yang terdapat di wilayah pemberdayaan.

Di Kecamatan Towuti terdapat Kawasan Pertanian Terpadu yang meliputi 5 desa di kawasan Mahalona Raya yakni Desa Mahalona, Buangin, Libukan Mandiri, Kalosi dan Tole yang memiliki sawah produktif seluas 1.808,13 hektar yang dikelola oleh 1.530 petani.

Sebagai debut programnya, Badan Koordinasi Antar Desa (BKAD) Kawasan Pertanian Terpadu mengajukan Program Peningkatan Kualitas Sarana Pertanian berupa pengadaan 5 unit Combine Harvester (alat panen padi) yang kemudian disetujui PT Vale untuk direalisasikan sebanyak 3 unit senilai Rp1.499.400.000.

### Testimoni Penerima Manfaat

“ PPM-PKPM ini sangat bagus. Karena merupakan program yang dirancang bersama PT Vale bersama Pemerintah Kabupaten Luwu Timur dan sesuai regulasi dari pemerintah pusat. Efek dan manfaatnya juga dapat dirasakan lebih luas. Seperti adanya unit Combine yang sangat membantu petani khususnya ketika memasuki masa panen karena bisa membuat pekerjaan lebih cepat dan tepat waktu. Ada sekitar 237 petani di 5 desa yang telah merasakan manfaat dari keberadaan unit ini. Namun ke depan menurut kami unit masih perlu ditambah. Hal ini untuk meningkatkan produktivitas petani karena dapat mengaktifkan lahan persawahan yang selama ini tidur (tidak dikelola) karena kekurangan tenaga ketika musim panen tiba.”

#### MUHAMAD AKBAR

— Ketua Badan Kerjasama Antar Desa Kawasan Pertanian Terpadu Kecamatan Towuti.

## Community Development and Empowerment Program - Independent Rural Area Development Program (PPM-PKPM) Integrated Agricultural Area Towuti Sub-district.

PPM-PKPM is a transformation and development of PT Vale's Social Program, previously called the Integrated Community Empowerment Program (PTPM). The PKPM focuses on the potential and resources found in the empowerment areas.

In Towuti Sub-district there is an Integrated Agricultural Area with 5 villages in the Mahalona Raya area, namely Mahalona, Buangin, Libukan Mandiri, Kalosi and Tole that have productive rice fields covering an area of 1,808.13 hectares managed by 1,530 farmers.

For the program debut, the Integrated Inter-Village Coordinating Board (BKAD) proposed an Agricultural Facilities Quality Improvement Program that included a request to purchase five Combine Harvesters; PT Vale approved the purchase of three Harvesters worth Rp 1,499,400,000.

### Beneficiary Testimony

“ PPM-PKPM is very good. It's a program designed by PT Vale together with East Luwu Regency Government and follows regulations from the central government. The effects and benefits of the program are felt broadly, like the Combine Harvester units, which are very helpful for farmers, especially at harvest time as it can do the work faster and on time. There are about 237 farmers in 5 villages that have benefited from this unit. But in the future, in our opinion, other units need to be added. This will increase the farmers' productivity as unmanaged paddy fields can be re-activated as now they are left unmanaged due to a lack of energy when the harvest season arrives.”

#### MUHAMAD AKBAR

— Chairperson of the Towuti Sub-district Inter-Village Integrated Farming Cooperation.





“Keberadaan Combine membuat panen beras SRI Organik lebih efisien waktu, tenaga dan biaya. Karena sebelum tanpa Combine, petani perlu menggunakan tenaga 8-15 buruh tani untuk memanen satu hektar lahan selama 2-4 hari. Dengan adanya Combine ini cuma hitungan jam sudah selesai. Gabah yang dihasilkan juga kering, bersih dan volumenya lebih besar karena ketika dipanen langsung masuk karung dan bisa mencapai 65-70 kilogram gabah per karung. Kalau tanpa Combine, petani terpaksa menumpuk gabah di sawah untuk antri proses perontokan padi sehingga banyak padi yang akhirnya busuk dan rusak. Alhasil maksimal hanya bisa mendapat gabah 60 kilogram per karung.”

**JARWO**

— Pendamping Petani SRI Organik Desa Libukan Mandiri, Kecamatan Towuti.

“Kami sebenarnya belum begitu paham tentang konsep dan pelaksanaan PPM-PKPM sebagai pengganti program sosial PT Vale yang sebelumnya, PTPM. Namun kalau alat panen Combine, kami sempat menggunakannya dan memang membuat panen efisien waktu dan tenaga juga biaya. Hasil juga lebih maksimal. Namun alat tersebut hanya istilahnya kami pakai. Padahal petani organik di Mahalona ini kan program unggulan perusahaan yang sudah berjalan selama 5 tahun. Harapan kami ya seharusnya ada sarana pertanian misalnya mesin gasrok untuk penyiangan, chopper dan lainnya khusus untuk kelompok tani organik binaan PT Vale.”

**SUNARNO**

— Petani SRI Organik, Desa Libukan Mandiri, Kecamatan Towuti.

“Using Combine Harvester units makes the SRI Organic rice harvests more efficient in terms of time, energy, and cost. Before, farmers needed to use 8-15 farm laborers to harvest one hectare of land and it took 2-4 days. With these units, it takes only a matter of hours to complete. Grain produced is also dry, clean, and the volume is higher as it is harvested directly into the sack and can reach 65-70 kilograms of grain per sack. Without the units, farmers were forced to pile up the grain in the paddy and queue to do the process of threshing rice, which caused so much of the rice eventually rotted and was damaged.”

**JARWO**

— Assistant SRI Organic Farmer of Libukan Mandiri Village, Towuti Sub-district.

“We actually did not quite understand the concept and implementation of the PPM-PKPM as a substitute for PT Vale’s previous social program, PTPM. But now after using the Combine harvesting tools, we have had time to use them and indeed it makes the harvest faster and energy and cost efficient. The results are also more optimal. But the tools are the only ones we use, even though the organic farmers in Mahalona were part of the Company’s flagship program that has been running for 5 years. We hope that there will be more agricultural facilities such as gasrok machines for weeding, choppers and others specifically for PT Vale’s organic farmer groups. ”

**SUNARNO**

— Assistant SRI Organic Farmer, Libukan Mandiri Village, Towuti Sub-district.





## Capaian Progam Pertanian Sehat Ramah Lingkungan Berkelanjutan (PSRLB)

PT Vale mengeluarkan pendanaan sebesar AS\$189.198 melalui Pengembangan Budidaya Penanaman Padi SRI Organik di wilayah Kecamatan Towuti yang dilaksanakan di Desa Lioka, Bua Angin dan Libukang Mandiri, serta di beberapa wilayah di Kecamatan Wasuponda di Desa Tabarano, Ledu-Ledu dan Wasuponda.

Para petani pelaku Padi SRI Organik rata-rata telah mempunyai pengetahuan untuk mengaplikasikan teknis budidaya dengan menerapkan 10 prinsip SRI Organik, serta keterampilan dalam mengoptimalkan keberadaan sumberdaya lokal setempat dengan menyediakan bahan organik (Kompos dan Mikroorganisme Lokal/Mol). Teknis budidaya ini juga berkontribusi untuk mengurangi emisi gas  $CH_4$ ,  $NO_2$ ,  $CO_2$ , menjaga keseimbangan ekosistem dan memperbaiki daya dukung dan produktifitas lahan.

Untuk Kecamatan Towuti dan Wasuponda, terdapat 43 pelaku tani dari berbagai Kelompok Tani dengan luasan lahan yang diolah sebesar 26,7 Ha. Pemasaran sudah menyebar ke 17 agen di 4 kecamatan, yaitu Kecamatan Nuha, Towuti, Wasuponda, Malili. Penjualan dilakukan di koperasi karyawan PT Vale, operasi ATS, pertokoan, perorangan dan di Pemerintah Daerah Kab Luwu Timur.

## Sustainable, Environmentally Friendly, and Healthy Agriculture (PSRLB) program achievements

PT Vale provided funding of US\$189,198 for the development of organic SRI rice cultivation in the Towuti Sub-district, in Lioka, Bua Angin and Libukang Mandiri Villages, as well as in several areas in the Wasuponda Sub-district in the Tabarano, Ledu-Ledu and Wasuponda Villages.

Thanks to the program, organic SRI rice farmers now have the knowledge to apply cultivation techniques following the 10 principles of Organic SRI, as well as the skills to optimize existing local resources as organic material (Compost and Local Micro / Mol organisms). This cultivation technique also contributes to reducing  $CH_4$ ,  $NO_2$ ,  $CO_2$  gas emissions, maintains the ecosystem balance, and improves the carrying capacity and land productivity.

In the Towuti and Wasuponda Sub-district, there were 43 farmers from various Farmer Groups with a cultivated land area of 26.7 hectares. Marketing now involves 17 agents in 4 sub-districts, Nuha, Towuti, Wasuponda, Malili. Sales were carried out through PT Vale's employee cooperatives, ATS operations, shops, individuals and the East Luwu Regency Government.





### Capaian program Upaya Kesehatan Bersumberdaya Masyarakat (UKBM) Berbasis Herbal

Sejalan dengan program Pemerintah dalam Undang-Undang Kesehatan No 36 Tahun 2009 Pasal 47 untuk meningkatkan kesehatan yang terpadu, PT Vale bersama dengan Pemerintah Daerah Kabupaten Luwu Timur dan masyarakat mengembangkan program UKBM berbasis herbal dengan total pendanaan sebesar AS\$93.184.

Sejak 2016, PT Vale telah menyusun perencanaan strategis dan melaksanakan kegiatan UKBM berbasis herbal yang diikuti oleh PKK se Kecamatan Nuha, KWT Mandiri Desa Tabarano Kecamatan Wasuponda, staff puskesmas, Balai Penyuluh Pertanian Kecamatan Nuha, dan saat ini dikembangkan juga di Kecamatan Towuti. Jumlah pelaku yang telah mengikuti program UKBM sebanyak 136 orang dan telah mengikuti berbagai program pelatihan dan kegiatan. Pada tahun 2019 PT Vale juga melakukan kegiatan Training of Trainers (ToT) yang diikuti oleh 30 peserta terpilih melalui seleksi.

### Community Herbal-Based Health Efforts (UKBM) Program Achievement

In line with the Government's program in the 2009 Health Law No. 36, Article 47 to improve integrated health, PT Vale together with the East Luwu Regency Government and the community developed an herbal-based UKBM program with a total funding of US\$93,184.

Since 2016, PT Vale has developed a strategic plan and implemented herbal-based UKBM activities with the PKK in Nuha Sub-district, KWT Mandiri Tabarano Village, Wasuponda Sub-district, Puskesmas staff, Agricultural Extension Center, Nuha Sub-district, and currently in development in Towuti Sub-district. To date, the UKBM program has involved 136 people who participated in various training programs and activities. In 2019 PT Vale also conducted Train the Trainers (ToT) activities, attended by 30 selected participants.



### Capaian Program Pengembangan Usaha Kecil Menengah (UKM) dan Olahan Komoditi Lokal

PT Vale melakukan pendampingan kepada pelaku UKM melalui bimbingan belajar di wilayah pemberdayaan dalam mendukung Pengembangan Kawasan Perdesaan Mandiri pada 10 Kawasan. Jumlah pelaku UKM yang ikut dalam kegiatan pembinaan sebanyak 562 pelaku UKM bergerak dalam bidang olahan Makanan, Minuman, Kerajinan, dan Jasa dengan total pendanaan program sebesar AS\$398.715. Selain pengembangan kapasitas pelaku, PT Vale juga memberikan dukungan dalam peningkatan nilai jual produk dengan memfasilitasi pembuatan desain dan penyediaan kemasan serta fasilitasi pembiayaan sertifikasi 70 produk UKM unggulan.

### Small and Medium Enterprises (SME) Development Process, and Local Processed Commodities Outreach

PT Vale provided training to SMEs in the empowerment areas in support of the Independent Rural Areas Development in 10 Regions. A total of 562 SMEs, engaged in Food processing, Beverages, Crafts, and Services, participated in this activity with a total funding of US\$398,715. In addition to capacity building, PT Vale also provided support to increase the selling price of products by helping with packaging design and supply, and helped with financing for certifying 70 leading SME products.





## Peningkatan Kapasitas Petugas/ Kader Kesehatan di Kabupaten Luwu Timur dalam Pencegahan dan Penanggulangan HIV AIDS Melalui Pelatihan Konselor VCT HIV

PT Vale melalui Pokja Kolaborasi TB–HIV bekerja sama dengan Pemerintah Kabupaten Luwu Timur dan RS INCO Sorowako mengadakan pelatihan untuk konselor dan dokter yang dapat melakukan perawatan, dukungan dan pengobatan di layanan RS dan Puskesmas.

PT Vale telah mendapatkan penghargaan pencegahan dan penanggulangan HIV/AIDS di tempat kerja dengan kategori 'Platinum' oleh Kementerian Tenaga Kerja dan Transmigrasi sejak 2015 – 2018. PT Vale tetap bersinergi dengan pemerintah dan semua mitra kerja untuk Program Pencegahan dan Penanggulangan HIV di tempat kerja. Upaya pencegahan dilakukan melalui: 3 Zero yaitu *Zero new infection, Zero AIDS related death, dan Zero discrimination* kepada penderita HIV-AIDS tahun 2030.

## Increasing the Capacity of Health Officers / Cadres in East Luwu Regency in HIV AIDS Prevention and Control through HIV VCT Counselor Training

PT Vale through the TB-HIV Collaboration Working Group in collaboration with the East Luwu Regency Government and INCO Sorowako Hospital held training for counselors and doctors in providing care, support and treatment in hospital and health center services.

PT Vale received the HIV / AIDS Prevention and Control in the Workplace Platinum category award, for its work for the Ministry of Manpower and Transmigration OHS program from 2015 – 2018. PT Vale continues this work in cooperation with the Government and all work partners for the HIV Prevention and Control Program. Prevention efforts follow the 3 Zero concept, namely Zero new infections, Zero AIDS related deaths, and Zero discrimination for HIV-AIDS sufferers by 2030.

## Pembangunan Infrastruktur Penunjang PPM

Alokasi anggaran untuk infrastruktur penunjang PPM 2019 sebesar AS\$711.001 atau 21% dari total realisasi anggaran tahun 2019 AS\$3,46 juta. Peningkatan realisasi biaya dikarenakan adanya perbaikan tangka air berkapasitas 500.000 liter, upgrade level bendungan Asuli, perbaikan instalasi pipa air yang rusak untuk layanan air bersih bagi masyarakat di delapan desa di Kecamatan Towuti. PT Vale juga membangun Pujasera Sorowako dan menata beberapa fasilitas umum, serta penyediaan listrik untuk penerangan di Kecamatan Nuha. Saat ini belum ada alih kelola aset, sehingga menjadi tantangan Perseroan karena harus mengelola pembiayaan dan aset.

## PPM Infrastructure Support Development

The budget allocation for the 2019 PPM infrastructure support was US\$711,001, or 21% of the total 2019 PPM budget of US\$3.46 million. The increase was due to the 500,000 liter water tank repairs, upgrades to the Asuli dam level, and repairs to water pipe installations for communities in eight villages in the Towuti Sub-district. PT Vale also built the Sorowako Food Court and tidied up public facilities, as well as provided electricity for lighting in the Nuha Sub-district. Currently, there has been no transfer of asset management yet, which remains a challenge for the Company, as it has to manage both the financing and the assets.

## Program PPM di Blok Bahodopi dan Pomalaa

Pelaksanaan program PPM 2019 di Blok Bahodopi dan Pomalaa masih fokus pada pembangunan infrastruktur penunjang, seperti pembangunan fasilitas sumur bor untuk akses air bersih, pembangunan dan penataan akses jalan raya, sekolah, pasar, fasilitas olah raga, irigasi, ruang rawat inap puskesmas dan penyediaan alat kesehatan, pembangunan tempat pengolahan sampah terpadu, serta bantuan prasarana pendukung usaha kecil untuk mendukung kemandirian ekonomi.

## PPM Program in Bahodopi and Pomalaa Blocks

The PPM 2019 program in the Bahodopi and Pomalaa Blocks remained focused on infrastructure support. This included such things as constructing wellbore facilities for clean water access, access roads construction and structuring, and schools, markets, sports facilities, irrigation, puskesmas inpatient rooms, medical devices provision, integrated waste treatment facilities construction, as well as small businesses infrastructure support in order to encourage economic independence.





Realisasi biaya tahun 2019 sebesar AS\$146.713, dan sebesar AS\$514.140 akan digunakan untuk melanjutkan beberapa kegiatan di tahun 2020, sehingga total realisasi biaya PPM 2019 di Blok Pomalaa dan Bahodopi sebesar AS\$656.583 atau 19% dari total realisasi biaya PPM 2019 sebesar AS\$3,46 juta. Kegiatan tahun 2020 juga akan didukung dengan kegiatan pengembangan kapasitas pelaku dan kelembagaan, serta program sosial dan budaya.

The actual cost realization in 2019 amounted to US\$146,713, with US\$514,140 carried over to 2020 to continue several activities, making the total actual realization for the PPM 2019 in the Pomalaa and Bahodopi Blocks US\$656,583, or 19% of the total 2019 PPM realization of US\$3.46 million. Activities in 2020 will also include capacity building activities for the communities and institutions involved, as well as investing in social and cultural programs.



## Mengelola Dampak Negatif [413-2]

Pelaksanaan Program Terpadu Pengembangan Masyarakat (PTPM) ditujukan untuk pengembangan dan pemberdayaan masyarakat secara berkelanjutan. Perencanaan dan pelaksanaan PTPM telah diselaraskan dengan rencana pembangunan Pemerintah Kabupaten Luwu Timur, bersifat jangka panjang dan memiliki peta jalan lima tahunan.

PTPM resmi diluncurkan pada Januari 2014, setelah didahului dengan berbagai persiapan, di antaranya: [413-1]

- Studi pemetaan pemangku kepentingan oleh Perusahaan sesuai standar AA 1000.
- Studi keselarasan community development dengan Peraturan Daerah Kabupaten Luwu Timur Nomor 02 Tahun 2005 Tentang Rencana Pembangunan Jangka Pendek Daerah Kabupaten Luwu Timur Tahun 2005-2025 dan Rencana Jangka Menengah Daerah 2011-2015.

## Negative Impact Management [413-2]

The Integrated Community Development Program (PTPM) is aimed at ongoing community development and empowerment. The PTPM planning and execution is aligned with the East Luwu Regency Government long-term development plan and its five-year road map.

PTPM was officially launched in January 2014, and was preceded by various preparatory steps, including: [413-1]

- A stakeholder mapping study by the Company in accordance with the AA 1000 standards.
- Studies of community development conformity with the East Luwu Regency 2005 Regulation No. 02 regarding the Short Term Regional Development Plan for East Luwu Regency for 2005-2025, and the 2011-2015 Regional Medium-Term Plan.



## Pengelolaan Dampak Negatif

### Negative Impact Management

Area operasi Operational Areas	Jumlah Desa Number of villages	Persentase dari Desa di Wilayah Operasi Percentage of villages in the Operational Areas	Tipe (investasi sosial/ pemberdayaan) Type (social investment / empowerment)
Blok Sorowako Sorowako Block	<ul style="list-style-type: none"> <li>Kecamatan Nuha terdiri dari 5 Desa/Kelurahan</li> <li>Kecamatan Wasuponda terdiri dari 6 Desa/kelurahan</li> <li>Kecamatan Towuti terdiri dari 18 Desa/kelurahan</li> <li>Kecamatan Malili terdiri dari 9 Desa/kelurahan</li> <li>Nuha Sub-district comprising 5 villages.</li> <li>Wasuponda Sub-district comprising 6 villages.</li> <li>Towuti Sub-district comprising 18 villages.</li> <li>Malili Sub-district comprising 9 villages.</li> </ul>	<p>100%</p> <p>Catatan: Terdapat 5 desa di Kecamatan Malili tidak termasuk dalam wilayah ring 1</p> <p>Remarks: 5 villages in Malili Sub-district were not included in the RING 1 region</p>	<p>Pengembangan dan Pemberdayaan Masyarakat - Pengembangan Kawasan Perdesaan Mandiri (PKPM), Kemitraan Strategis, Kontribusi Strategis</p> <p>Community Development and Empowerment – Self Reliance Rural Area Development (PKPM), Strategic Partnership, Strategic Contribution</p>
Blok Pomalaa Pomalaa Block	<ul style="list-style-type: none"> <li>Kecamatan Pomalaa, terdiri dari 12 Desa/kelurahan</li> <li>Kecamatan Baula terdiri dari 10 Desa/Kelurahan</li> <li>Pomalaa Sub-district, comprising 12 villages.</li> <li>Baula Sub-district comprising 10 villages.</li> </ul>	<p>100%</p>	<p>Investasi Sosial - Penyediaan infrastruktur untuk mendukung program pengembangan dan pemberdayaan masyarakat (PPM)</p> <p>Social Investment – Provision of infrastructure to support community development and empowerment (PPM) program</p>
Blok Bahodopi Bahodopi Block	<ul style="list-style-type: none"> <li>Kecamatan Bungku Timur terdiri dari 6 Desa/kelurahan</li> <li>Kecamatan Bahodopi terdiri dari 7 Desa/kelurahan.</li> <li>Bungku Timur Sub-district comprising 6 villages.</li> <li>Bahodopi Sub-district comprising 7 villages</li> </ul>	<p>100%</p> <p>Catatan: Terdapat 4 desa di Kecamatan Bungku Timur dan 5 Desa di Kecamatan Bahodopi tidak termasuk dalam wilayah ring 1.</p> <p>Remarks: 4 villages in Bungku Timur Sub-district and 5 Villages in Bahodopi Sub-district not included in the RING 1 region.</p>	<p>Investasi Sosial - Penyediaan infrastruktur untuk mendukung program pengembangan dan pemberdayaan masyarakat (PPM)</p> <p>Social Investment – Provision of infrastructure to support community development and empowerment (PPM) program</p>





Area operasi Operational Areas	Jumlah Desa Number of villages	Dampak Negatif Aktual dan Potensial Actual and Potential Negative Impacts	Upaya Penanggulangan Dampak Impact Mitigation
Blok Sorowako Sorowako Block	6 Desa 6 villages	<ul style="list-style-type: none"> <li>• Kenaikan level air danau Towuti , dan kenaikan level air sungai di Kec. Malili</li> <li>• Kegiatan penambangan di area Pinang Hill (area CoW mengakibatkan sejumlah petani tidak melanjutkan kegiatannya)</li> <li>• Increased lake Towuti water level, and increases in river water level in the Malili Sub-district</li> <li>• The mining activity in the Pinang Hill area (CoW area) caused some farmers to stop their activities</li> </ul>	<ul style="list-style-type: none"> <li>• Melakukan <i>assessment</i> dan ganti rugi</li> <li>• Melakukan pemantauan berkala kenaikan level air yang dimanfaatkan untuk pembangkit listrik</li> <li>• Conducted an assessment, compensated for impact</li> <li>• Conducted periodic monitoring on increased water level used for electricity generation</li> </ul>
Blok Pomalaa Pomalaa Block	2 Desa 2 villages	<p><b>Aktivitas kendaraan operasional mengakibatkan lokasi jalan berdebu</b></p> <p>Operational vehicle activities passing along public roads resulting in dusty road conditions</p>	<p><b>Melakukan perbaikan dan penataan akses jalan</b></p> <p>Made improvements and regulated access roads</p>
Blok Bahodopi Bahodopi Block	3 Desa 3 villages	<p><b>Adanya dampak kegiatan eksplorasi terhadap sumber air bersih</b></p> <p>Impact of exploration activities on clean water supplies</p>	<p><b>Membangun sumur bor untuk sumber air bersih di lokasi terdampak</b></p> <p>Built wellbores as a clean water source in the affected location</p>

Memasuki tahun 2019, Perseroan melanjutkan realisasi program-program sesuai Rencana Induk Pengembangan dan Pemberdayaan Masyarakat (RI-PPM) Periode 2018 – 2022. RI-PPM disusun berdasar Peraturan Menteri ESDM No. 25 Tahun 2018 Tentang Pengusahaan Pertambangan Mineral dan Batubara. Penyusunan RI-PPM dilatarbelakangi hasil evaluasi pelaksanaan program PTPM 2013-2017, hasil penggalian gagasan Tim Tiga Pilar, Rencana Pengembangan Kawasan Unggulan, Konsultasi Pemangku Kepentingan, Rekomendasi Internal Audit PT Vale, semangat kemandirian dan keberlanjutan pascatambang. [413-2]

RI-PPM membidik delapan sektor pengembangan dan pemberdayaan masyarakat yakni pendidikan, kesehatan, pendapatan dan pekerjaan, kemandirian ekonomi, sosial-budaya, pengelolaan lingkungan, kelembagaan dan infrastruktur.

Dalam pelaksanaannya, tetap melalui pola kemitraan tiga pilar yakni pemerintah, perusahaan dan masyarakat. Pelaksanaan mencakup empat kecamatan di Kabupaten Luwu Timur yang menjadi wilayah pemberdayaan, yakni Kecamatan Nuha, Malili, Wasuponda, dan Towuti.

Entering 2019, the Company continued its programs in line with the Community Development and Empowerment (RI-PPM) Master Plan for the period 2018-2022. The RI-PPM was prepared based on the Ministry of Energy and Mineral Resources 2018 Regulation No. 25 concerning Mineral and Coal Mining Businesses. The RI-PPM preparation is based on results and input from the following: the 2013-2017, the Three Pillars Team exploration of ideas; the Featured Area Development Plan; stakeholder consultations; PT Vale's internal audit recommendations; the spirit of independence; and post-mining sustainability. [413-2]

The RI-PPM targets eight community development and empowerment sectors, namely education, health, income and employment, economic independence, socio-culture, environmental management, institutions and infrastructure.

During its implementation, it remains fixed to the three pillar partnership structure, namely the government, companies and the community. The scope covers four sub-districts in East Luwu Regency, which are the empowerment areas, Nuha, Malili, Wasuponda, and Towuti Sub-districts.





## Pelaksanaan PPM Tahun 2019

- Program Pengembangan Kawasan Perdesaan Mandiri (PKPM)

Penyelenggaraan PKPM merupakan pola dukungan yang dibangun bersama Pemerintah Pusat Kementerian Desa dan pembangunan daerah tertinggal, pemerintah propinsi Sulawesi Selatan dan Pemerintah Daerah Kabupaten Luwu Timur. Sasaran kegiatan berbasis kawasan perdesaan dan mengacu Peraturan Menteri Desa dan Pembangunan Daerah Tertinggal (Permen Desa) No.5 Tahun 2016 Tentang Pengembangan Kawasan Perdesaan.

## PPM Implementation in 2019

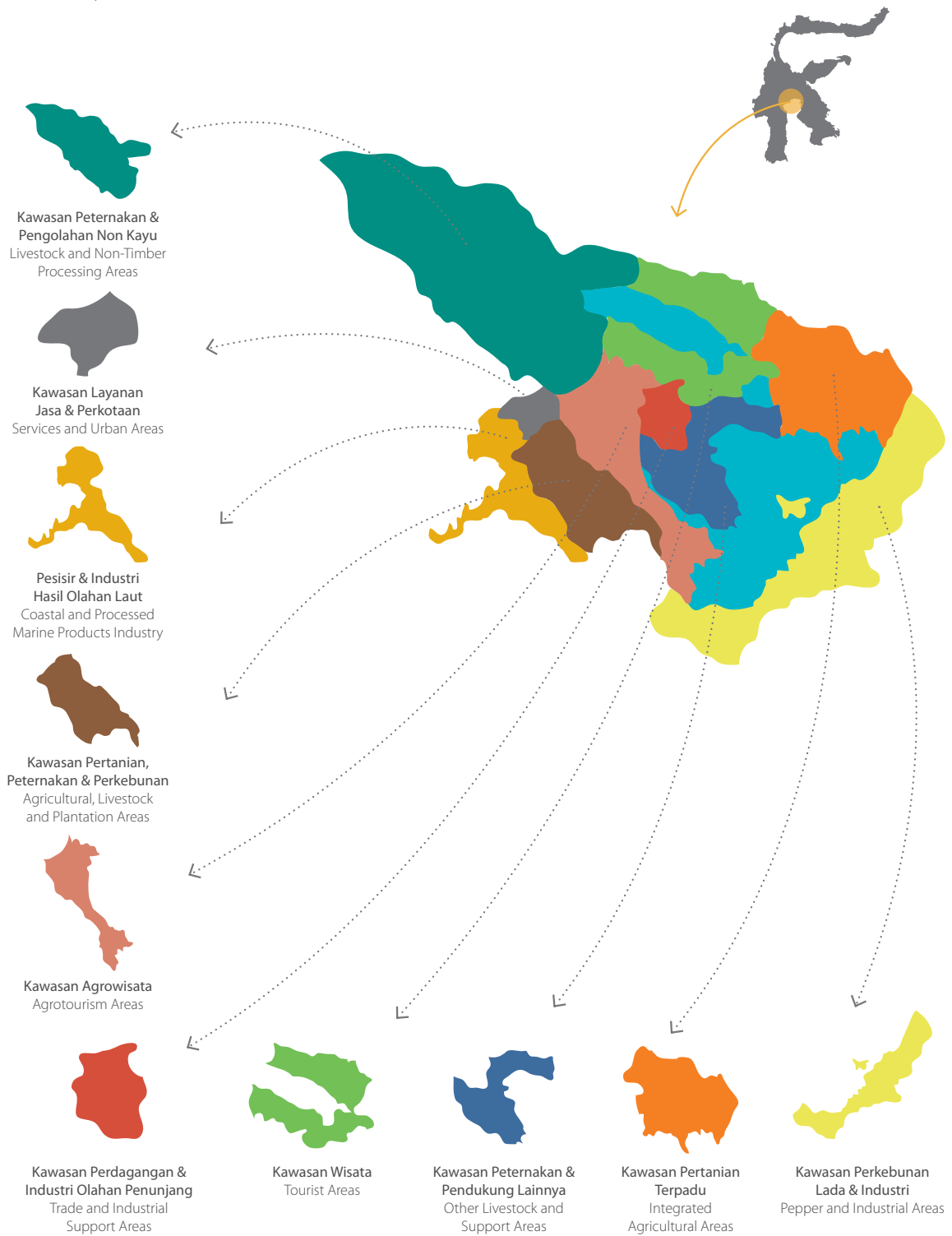
- Independent Rural Area Development Program (PKPM)

PKPM is a framework of support developed with the Central Government Ministry of Villages and Development of Disadvantaged Regions, the South Sulawesi Provincial Government and the Regional Government of East Luwu where the activities are targeted at rural areas, and refers to the Ministry of Villages and Development of Disadvantaged Regions (Permen Desa) 2016 Decree No. 5 concerning the Development of Rural Areas.





## Pengembangan Kawasan Perdesaan Rural Area Development



## Realisasi Kegiatan PKPM Tahun 2019

### PKPM Activities Realization in 2019

Kawasan Pengembangan Development Areas	Lokasi Locations	Realisasi Realization
Kawasan Wisata Tourist Areas	Desa Nuha, Desa Nikkel, Desa Sorowako, Kelurahan Magani Nuha, Nikkel, Sorowako and Magani Villages	<ul style="list-style-type: none"> <li>• Penataan Ruang Terbuka Hijau Camp Security Desa Sorowako dan Kelurahan Magani</li> <li>• Operasional dan penguatan kelembagaan BKAD</li> <li>• Structuring Green Open Spaces in Camp Security in Sorowako and Magani Villages</li> <li>• Operational and institutional strengthening of BKAD</li> </ul>
Kawasan Agrowisata Agrotourism Areas	Desa Ledu-ledu, Desa Wasuponda, Desa Tabarano, Desa Balambano Ledu-ledu, Wasuponda, Tabarano, Balambano Villages	<ul style="list-style-type: none"> <li>• Pengadaan Sarana Produksi dan Penunjang Pertanian Organik</li> <li>• Penyusunan Grand design dan pengembangan kawasan Agro Wisata</li> <li>• Operasional dan penguatan kelembagaan BKAD</li> <li>• Procurement of Facilities for Production and Support of Organic Agriculture</li> <li>• Grand design and development of the Agro Tourism area</li> <li>• Operational and institutional strengthening of BKAD</li> </ul>
Kawasan Peternakan dan Pengolahan Non Kayu Livestock and Non-Timber Processing Areas	Desa Parumpantai, Desa Matano, Desa Kawata Parumpantai, Matano, Kawata Villages	<ul style="list-style-type: none"> <li>• Pengadaan Sarana Produksi dan Penunjang Pertanian Organik</li> <li>• Penguatan Kapasitas Petani dan Pengolahan Madu</li> <li>• Operasional dan penguatan kelembagaan BKAD</li> <li>• Procurement of Facilities for Production and Support of Organic Agriculture</li> <li>• Strengthening the Capacity of Farmers and Honey Processing</li> <li>• Operational and institutional strengthening of BKAD</li> </ul>
Kawasan Perdagangan dan Industri Olahan Penunjang Trade and Industrial Support Areas	Desa Asuli, Desa Wawondula, Desa Lioka, Desa Baruga, Desa Langkea Raya Asuli, Wawondula, Lioka, Baruga, Langkea Raya Villages	<ul style="list-style-type: none"> <li>• Design dan Masterplan Pujasera Wawondula</li> <li>• Operasional dan penguatan kelembagaan BKAD</li> <li>• Design and Master Plan for Pujasera Wawondula</li> <li>• Operational and institutional strengthening of BKAD</li> </ul>
Kawasan Peternakan dan Pendukung Lainnya Other Livestock and Support Areas	Desa Timampu, Desa Matompi, Desa Pekalao Timampu, Matompi, Pekalao Villages	<ul style="list-style-type: none"> <li>• Pelatihan Penggemukan Sapi</li> <li>• Operasional dan penguatan kelembagaan BKAD</li> <li>• Cattle Feedlot Training</li> <li>• Operational and institutional strengthening of BKAD</li> </ul>
Kawasan Pertanian Terpadu Integrated Agricultural Areas	Desa Tole, Desa Buangin, Desa Libukan Mandiri, Desa Kalosi, Desa Mahalona Tole, Buangin, Libukan Mandiri, Kalosi, Mahalona Villages	<ul style="list-style-type: none"> <li>• Pengadaan Dozer Padi</li> <li>• Pembangunan Gudang Oven Gabah</li> <li>• Penyediaan lantai jemur padi</li> <li>• Operasional dan penguatan kelembagaan BKAD</li> <li>• Procurement of Rice Dozers</li> <li>• Construction of Grain Oven Warehouse</li> <li>• Provision of rice drying flooring</li> <li>• Operational and institutional strengthening of BKAD</li> </ul>
Kawasan Perkebunan Lada dan Industri Pepper and Industrial Areas	Desa Tokalimbo, Desa Masiku, Desa Bantilang, Desa Rante Anging, Desa Loeha Tokalimbo, Masiku, Bantilang, Anging, Loeha Villages	<ul style="list-style-type: none"> <li>• Desain &amp; perencanaan kawasan perkebunan lada</li> <li>• Pembangunan akses jalan balai pelatihan</li> <li>• Operasional dan penguatan kelembagaan BKAD</li> <li>• Pepper plantation area design &amp; planning</li> <li>• Building access road to the training center</li> <li>• Operational and institutional strengthening of BKAD</li> </ul>
Kawasan Layanan Jasa dan Perkotaan Services and Urban Areas	Desa Puncak Indah, Desa Baruga, Kelurahan Malili Puncak Indah, Baruga and Malili Villages	<ul style="list-style-type: none"> <li>• Pembangunan Baruga Collaborated Center</li> <li>• Operasional dan penguatan kelembagaan BKAD</li> <li>• Construction of Baruga Collaborated Center</li> <li>• Operational and institutional strengthening of BKAD</li> </ul>
Pesisir dan Industri Hasil Olahan Laut Coastal and Processed Marine Products Industry	Desa Balantang, Desa Wewangriu, Desa Pasi-pasi, Desa Harapan Balantang, Wewangriu, Pasi-pasi, Harapan Villages	<ul style="list-style-type: none"> <li>• Pembangunan Apartemen Ikan</li> <li>• Penanaman Mangrove pesisir laut Malili</li> <li>• Operasional dan penguatan kelembagaan BKAD</li> <li>• Fish Apartment Development</li> <li>• Planting Mangrove at Malili beach</li> <li>• Operational and institutional strengthening of BKAD</li> </ul>
Kawasan Pertanian, Peternakan dan Perkebunan Agricultural, Livestock and Plantation Areas	Desa Pongkeru dan Desa Laskap Pongkeru and Laskap Villages	Belum ada kegiatan No activities yet





### • Kegiatan Kepedulian Lain

Selama tahun 2019, PT Vale juga menyelenggarakan berbagai kegiatan kepedulian yang ditujukan untuk membantu korban bencana alam di wilayah Indonesia.

### • Other Acts of Compassion

During 2019, PT Vale also undertook several acts of compassion aimed at helping victims of natural disasters in the Indonesian region, including:



PT Vale melakukan serah terima bantuan puskesmas dan dua unit hunian sementara (huntara) kepada Pemerintah Kota Palu, Sulawesi Tengah, pada akhir Februari 2019. PT Vale terlibat dalam pembangunan huntara, puskesmas dan fasilitas umum tersebut sejak pertengahan November 2018 bersama-sama dengan kontraktor lokal yang tergabung dalam Himpunan Pengusaha Sorowako (HIPSO) serta beberapa kontraktor nasional.

PT Vale donated assistance in the form of puskesmas and two temporary shelter units to the Palu City Government, Central Sulawesi, at the end of February 2019. PT Vale has also been involved in the construction of shelters, health centers and public facilities since mid-November 2018 together with local contractors who are members of the Sorowako Entrepreneurs Association (HIPSO) and several national contractors, to support the government's efforts to restore Palu after the earthquake and tsunami.



PT Vale juga memberikan dukungan bantuan bencana untuk korban banjir berupa bahan makanan, obat-obatan, dan bantuan alat berat untuk pembenahan sarana dan prasarana yang rusak di beberapa lokasi di Kabupaten Luwu Timur dan Morowali: Desa yang terkena dampak banjir di Kabupaten Luwu Timur: Desa Togo-Wasuponda, Desa Laskap di Karebbe dan Labose, Desa Pongkeru, dan Desa Puncak Indak, sekitar jalan di lokasi Desa Kawata, serta Kecamatan Bungku Timur dan Bahodopi di Kabupaten Morowali.

PT Vale sent disaster relief support for flood victims including food, medicines, and heavy equipment assistance to repair damaged facilities and infrastructure in several locations in the East Luwu and Morowali Regencies: Flood-affected villages in East Luwu Regency including Togo-Wasuponda Village, Laskap Village in Karebbe and Labose, Pongkeru Village, and Puncak Indak Village, roads in the Kawata Village, and in the East Bungku and Bahodopi Sub-districts in Morowali Regency.

## Identifikasi Pelibatan Pemangku Kepentingan

Secara berkesinambungan Perseroan melakukan identifikasi atas kebutuhan pemangku kepentingan. Hasil identifikasi menjadi dasar Perseroan untuk melakukan respon.

## Stakeholder Identification

The Company continues to communicate and consult with stakeholders ongoing basis, which helps inform how we identify and manage our sustainability-related impacts.



## Hasil Konsultasi dan Pelibatan Pemangku Kepentingan Results of Stakeholder Consultation and Engagement

**Bidang**  
Sector

**Isu Strategis**  
Strategic Issue



**Lingkungan**  
Environment



**Penjelasan**  
Description

1. Singkronisasi perencanaan program dengan para pihak melalui finalisasi dokumen Rencana Pengembangan Kawasan Perdesaan (RPKP)
  2. Belum mamadainya kapasitas pelaku program dalam mengawal tahapan perencanaan sampai kepada monitoring dan evaluasi
  3. Proses perencanaan sebagian masih relatif belum berbasis pada isu masyarakat, mempertimbangkan aspek prasyarat pendukung seperti perizinan, ketersediaan lahan dan sumberdaya teknis untuk pelaksanaan program kegiatan.
  4. Mempertimbangkan skema swakelola pada pelaksanaan program Pengembangan Kawasan Perdesaan Mandiri tidak hanya melalui tender/penunjukan langsung.
1. Synchronize program planning with the parties through finalizing the Rural Area Development Plan (RPKP) documents
  2. Capacity of program implementers to oversee the planning stages has not yet reached the level of monitoring and evaluation
  3. The planning process is not completely based on community issues, and considers support aspects such as licensing, land availability and technical resources for the implementation of program activities.
  4. The self-management scheme for the implementation of the Independent Rural Area Development program does not go through tenders / direct appointments.

1. Pembukaan dan perambahan hutan diatas lahan konsesi
  2. Belum optimalnya penanganan lahan kritis dan konservasi hutan
  3. Pengelolaan limbah masyarakat
  4. Usulan program untuk pelestarian lingkungan masih sangat kurang diajukan dalam PKPM
  5. Konservasi pesisir laut dari aspek teknis belum mamadai
1. Clearing and encroachment of forests on concession land
  2. Not yet optimal handling of critical soil and forest conservation
  3. Community waste management
  4. Proposed programs for environmental conservation still lack the PKPM
  5. Conservation of the seashore from technical aspects is not adequate





## Infrastruktur Infrastructure



1. Pembangunan infrastruktur yang kurang memperhatikan tata ruang dan tata wilayah
  2. Keterbatasan lahan untuk pengembangan wilayah
  3. Pembenahan dan pengembangan TPA kecamatan
1. Infrastructure development pays little attention to the spatial and regional layout
  2. Limited land for local development
  3. Improvement and development of district TPA

## Kelembagaan Institutional



1. Dinamika kerjasama kemitraan antara pemerintah, perusahaan dan masyarakat
  2. Pelestarian budaya dan kearifat lokal
  3. Dukungan terhadap kelembagaan masyarakat / komunitas adat
  4. Akses Modal bagi BUMDES/ BUMDESMA dan Pelaku Usaha Lainnya.
1. The dynamics of partnership cooperation between government, companies and the community
  2. Preservation of local culture and wisdom
  3. Support for community / customary community institutions
  4. Capital Access for BUMDES / BUMDESMA and Other Business Actors.

## Pendidikan Education



1. Peningkatan mutu pendidikan bagi masyarakat sekitar tambang
  2. Kesenjangan antara pendidikan dengan kebutuhan kompetensi kerja (vokasi)
  3. Kemandirian pengelolaan Yayasan Pendidikan Sorowako (YPS)
  4. Keberlanjutan pemanfaatan sumber daya, sarana prasarana dan aset pendidikan (PPI, ATS dll).
1. Improving the quality of education for the communities around the mines
  2. The gap between education and work competency needs (vocational)
  3. Independence in the management of the Sorowako Education Foundation (YPS)
  4. Sustainability in the use of resources, infrastructure, and educational assets (PPI, ATS, etc.).

## Respon Keluhan dan Penanganan Pengaduan

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

PT Vale memberikan akses kepada masyarakat untuk menyampaikan keluhan terkait dengan pelaksanaan tanggung jawab sosial. Setiap keluhan maupun pelaporan akan ditindaklanjuti Departemen External Relations and Corporate Affairs dengan berbagai metode pendekatan dan melibatkan fungsi-fungsi terkait.

Selama tahun 2019 ada beberapa keluhan/pengaduan dari masyarakat yang disampaikan melalui surat ke Direktur External Relations dan pada saat rapat koordinasi dengan kecamatan yang dilakukan satu bulan sekali. Saat ini jumlah keluhan belum dapat disampaikan, namun PT Vale menindaklanjuti setiap keluhan/pengaduan dengan menugaskan fungsi terkait untuk melakukan dialog dan mencari solusi terbaik. Perseroan telah berkomitmen untuk memberdayakan masyarakat, sehingga tidak terdapat penambangan ilegal atau pertambangan rakyat yang dilakukan oleh masyarakat di sekitar wilayah operasi PT Vale. Selain itu, sepanjang tahun 2019 tidak ada demonstrasi atau pemogokan yang terjadi selama lebih dari satu minggu. [413-1][MM4][MM8]

PT Vale provides ways for the public to submit complaints and reports related to the implementation of social responsibility. Every complaint or report is followed up by the External Relations and Corporate Affairs Department.

During 2019 there were several complaints from the public, submitted by letter to the External Relations Director, and at their monthly coordination meetings. At the moment, the total complaints cannot yet be reported, however PT Vale follows up on all complaints made and assigns related functions to carry out dialogue to find the best solutions. The Company is committed to community empowerment, so no illegal mining or artisanal mining is carried out in the vicinity of PT Vale's operations. Throughout 2019 there were no demonstrations or strikes that occurred for more than one week. [413-1][MM4][MM8]

### Keluhan/Pengaduan Masyarakat Tahun 2019 dan Tindak Lanjutnya

#### Public Complaints in 2019 and Follow-Up

Jenis Keluhan/Pengaduan Complaint / Violation Type	Lokasi Location	Tindak Lanjut Follow-up
<b>Terkait Langsung Dengan Kegiatan Operasional</b> Related Directly With Operational Activities		
Tanah tergenang/kenaikan level air Danau Towuti Flooded land / Lake Towuti water level rise	Desa Loeha, Tokalimba, Bantilang, Timampu Loeha, Tokalimba, Bantilang, Timampu Villages	PT Vale dan masyarakat telah mencapai kesepakatan yang difasilitasi oleh pemerintah Kab. Luwu Timur, Kecamatan Towuti, Desa untuk memberikan bantuan kemanusiaan dan kompensasi berdasarkan hasil inventarisasi bersama. PT Vale and the communities reached an agreement facilitated by the East Luwu Regency government, Towuti Sub-district, the Villages to provide humanitarian assistance and compensation based on the joint inventory results.
Kebun merica di lahan PT Vale yang akan digunakan kembali Pepper plantations on PT Vale land that will be reused	Pinang Hill (Januari & Desember 2019) Pinang Hill (January & December 2019)	PT Vale bersama pemerintah secara berkala melakukan komunikasi dengan masyarakat pemilik kebun untuk mencari penyelesaian melalui kolaborasi program PPM bidang ekonomi. PT Vale together with the government regularly communicates with the plantation owners to find alternative livelihood solutions through the PPM program.
Reforma agraria Agrarian Reform	Enggano junction (Oktober 2019) Enggano junction (October 2019)	PT Vale telah melakukan konsultasi dengan Badan Pertanahan Nasional, Pemerintah Daerah, dan DPRD Luwu Timur untuk mengidentifikasi lahan yang diajukan oleh masyarakat dan memastikan area tersebut masuk dalam rencana penambangan perusahaan. PT Vale consulted with the National Land Agency, Regional Government, and East Luwu DPRD to identify the land proposed by the community and to ensure the areas are included in the Company's mining plans going forward.





Tahun 2019 PT Vale bersama dengan tokoh masyarakat dan Pemerintah Kabupaten Luwu Timur telah menyepakati mekanisme penyelesaian tanah tergenang dengan membayarkan kompensasi akibat kenaikan level air Danau Towuti di atas 319,60 meter di atas permukaan laut sesuai nota kesepahaman yang ditandatangani pada 26 Maret 2019.

Kompensasi diberikan sebagai pengganti percontakan sawah kepada pemilik lahan persawahan yang terdampak dengan luas total 447,5 hektar di Desa Loeha, Tokalimbo, dan Bantilang. Dengan dibayarkannya biaya pengganti percontakan sawah tersebut, maka seluruh perjanjian, kesepakatan, maupun komitmen — termasuk Surat Keputusan Bupati Luwu Timur Nomor: 87/2006, terkait tanah tergenang — dinyatakan sebagai solusi terbaik untuk semua Pihak terkait. Pada tahun 2019, PT Vale tidak melakukan relokasi masyarakat. 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 adat yang diakui dan tercatat dalam perjanjian. [MM5][MM6][MM9]

In 2019, PT Vale, community leaders, and the East Luwu Regency Government agreed on a mechanism for settling flooded land by paying compensation for the increase in Lake Towuti's water levels that reached 319.60 meters above the sea level in line with the memorandum of understanding signed on March 26, 2019.

Compensation was in the form of replacing affected rice fields with new rice fields covering a total area of 447.5 hectares in the Loeha, Tokalimbo, and Bantilang villages. Following the rice fields replacement, and all promises, agreements and commitments - including the East Luwu Regent Decree No: 87/2006, related to stagnant land - it was declared as the best solution for all parties concerned. In 2019, PT Vale did not conduct community resettlements. In accordance with the Government regulations, two of PT Vale's three blocks have Post-Mining Plans. In addition, one of the three blocks in PT Vale's operating territory has been recognized as being populated by indigenous peoples, and has been enshrined in the agreement. [MM5][MM6][MM9]



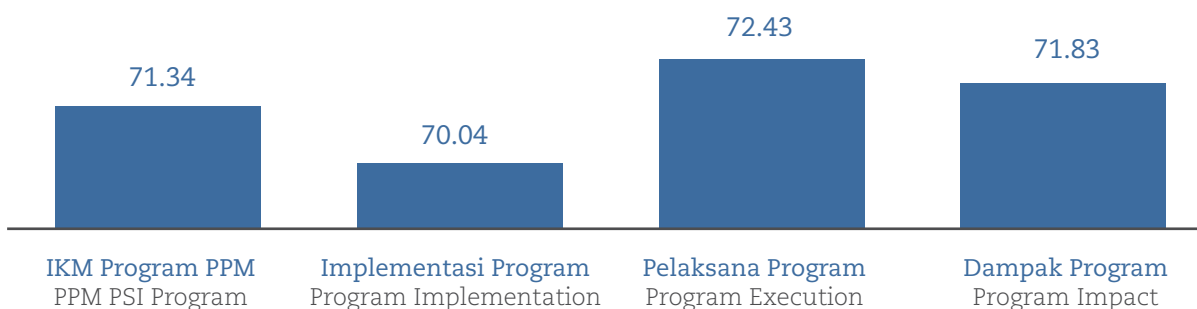


Sebagai salah satu proses evaluasi program, pada tahun 2019 PT Vale melakukan penilaian Indeks Kepuasan Masyarakat (IKM) program PPM. Penilaian IKM dilakukan terhadap program PPM di 4 wilayah pemberdayaan di Blok Sorowako, yang meliputi Kecamatan Nuha, Kecamatan Towuti, Kecamatan Wasuponda, dan Kecamatan Malili.

As part of the program evaluation process, in 2019 PT Vale independently conducted a PPM program Public Satisfaction Index to determine the level of community satisfaction. The evaluation was carried out in 4 empowerment areas in the Sorowako Block, including Nuha, Towuti, Wasuponda, and Malili Sub-districts.

### Indeks Kepuasan Masyarakat (IKM) Program PPM PT Vale Indonesia Tbk (2019)

PT Vale Indonesia Tbk 2019 PPM Program Public Satisfaction Index (PSI)

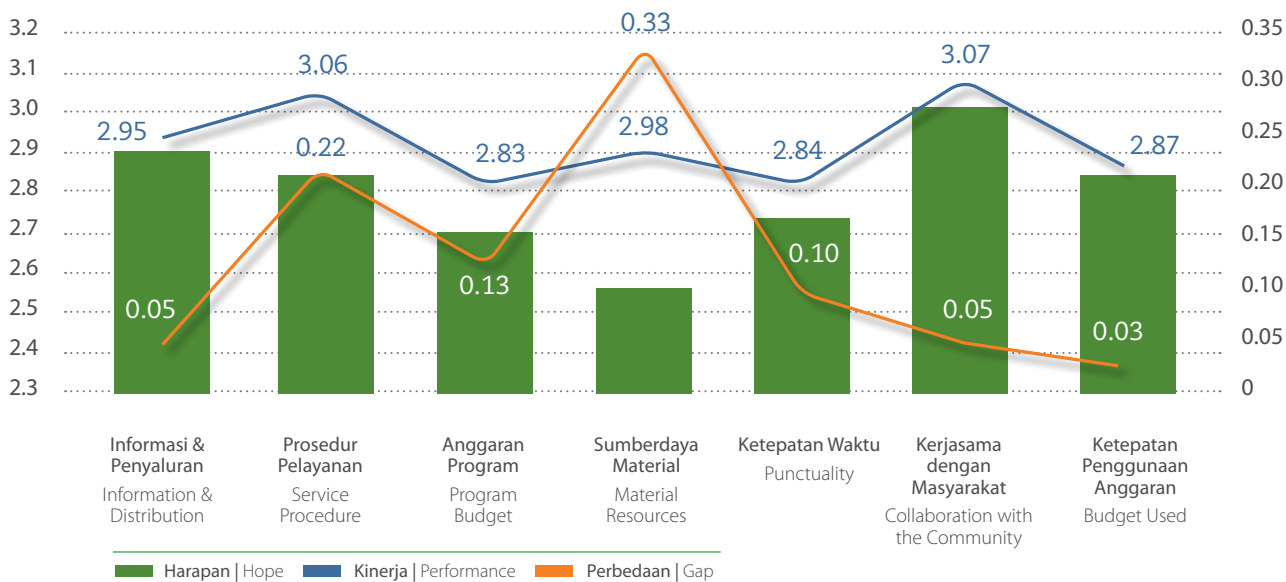


Hasil IKM Program Pengembangan dan Pemberdayaan Masyarakat (PPM), secara keseluruhan mencapai nilai indeks sebesar 71,34 masuk dalam kategori B atau 'Baik'.

The PSI results for the Community Development and Empowerment Program (PPM), overall reached 71.34, in the B or Good category.

### Program PPM PT Vale Tahun 2019

PT Vale 2019 PPM Program



Secara keseluruhan implementasi program berjalan baik, yang berarti kinerja implementasi program sesuai dengan harapan masyarakat untuk seluruh indikator yang semuanya positif (+).

Overall the program implementation went well, meaning it was in line with the communities' expectations as all indicators were positive (+).







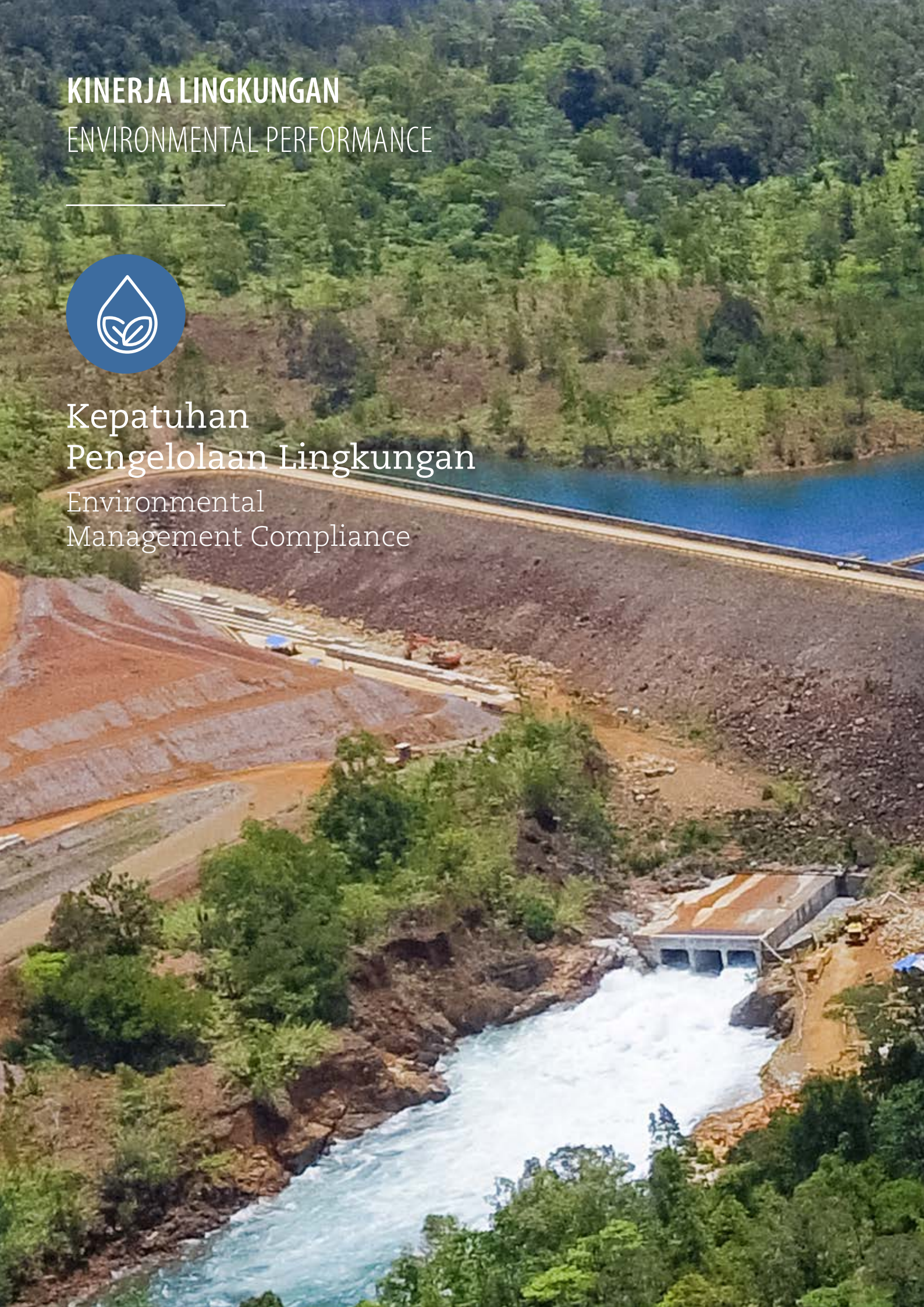
# KINERJA LINGKUNGAN

## ENVIRONMENTAL PERFORMANCE

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Kepatuhan  
Pengelolaan Lingkungan  
Environmental  
Management Compliance











## Pendekatan Manajemen

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

Dalam menjalankan kegiatan operasi dan usahanya, PT Vale senantiasa mematuhi segala ketentuan hukum yang mengatur tentang pengelolaan lingkungan.

In carrying out its operates and business activities, PT Vale is committed to complying with legal provisions governing environmental management.



## Komitmen Commitment

PROPER Hijau  
pada tahun 2020

Green PROPER  
in 2020



## Kebijakan Policy

- UU Nomor 4 Tahun 2009 Tentang Pertambangan Mineral dan Batubara.
- UU Nomor 32 Tahun 2009 Tentang Perlindungan dan Pengelolaan Lingkungan Hidup.
- Program Penilaian Peringkat Kinerja Perusahaan (PROPER) Kementerian Lingkungan Hidup dan Lingkungan (KLHK).
- 2009 Law Number 4 concerning Mineral and Coal Mining.
- 2009 Law Number 32 concerning Environmental Protection and Management.
- Ministry of Environment and Forestry (KLHK) Corporate Performance Rating Program (PROPER).





## Realisasi Realization

Sampai dengan akhir tahun 2019 peringkat PROPER Hijau.

At the end of 2019  
Green PROPER ranking

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## Sumber Daya Resources

Biaya lingkungan:  
AS\$10.460.311

Environmental costs:  
US\$10,460,311

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## Inisiatif Khusus Tahun 2019

Special 2019 Initiative

Penyusunan Rencana Aksi  
PROPER HIJAU 2020 dan  
pembentukan Komite Ad Hoc.

Preparation for the GREEN PROPER  
Action Plan 2020 and the formation  
of an Ad Hoc Committee.

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## Evaluasi Evaluation

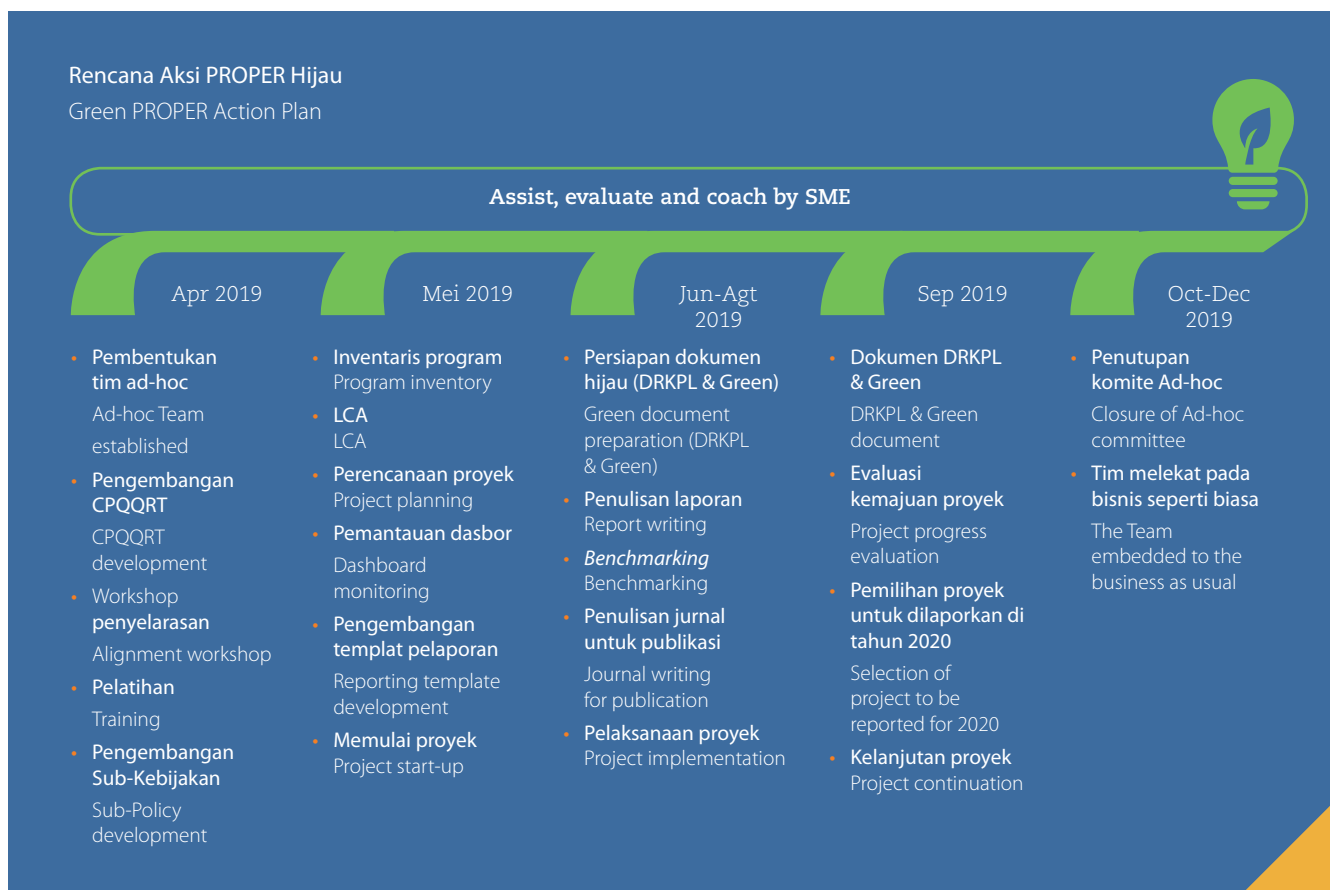
- Pelaporan berkala Rencana Pengelolaan Lingkungan (RKL) dan Rencana Pemantauan Lingkungan (RPL) kepada pihak-pihak berwenang.
- Pengawasan internal oleh Fungsi Departemen Lingkungan.
- Periodic reporting of Environmental Management Plans (RKL) and Environmental Monitoring Plans (RPL) for the authorities.
- Internal oversight by the Department of Environment.

## Menuju Proper Hijau Tahun 2020

Setiap tahun PT Vale menyertakan dokumen pelaksanaan pengelolaan lingkungan pada Program Penilaian Peringkat Kinerja Perusahaan (PROPER) oleh Kementerian Lingkungan Hidup dan Kehutanan (KLHK). Pada akhir tahun 2019 PT Vale berhasil mendapatkan peringkat PROPER Hijau. Peringkat tersebut menandakan pengelolaan lingkungan telah melampaui ketaatan (*beyond compliance*) dalam hal pengelolaan lingkungan dan pemberdayaan masyarakat. Selama tahun 2019 PT Vale tidak pernah mendapatkan sanksi terkait sangkaan pelanggaran pengelolaan lingkungan. [102-11][307-1]

## Towards Green Proper in 2020

Every year PT Vale includes environmental management documents in the Company's Environmental Management Performance Assessment Program (PROPER) to the Ministry of Environment and Forestry (KLHK). At the end of 2019 PT Vale succeeded in getting a Green PROPER rating. The rating indicates that environmental management has exceeded compliance (*beyond compliance*) in terms of environmental management and community empowerment. During 2019 PT Vale did not receive any sanctions related to alleged environmental management violations. [102-11][307-1]





## Pengembangan Energi Baru dan Terbarukan

Sejak memulai kegiatan di Sorowako, PT Vale telah mengembangkan energi terbarukan dengan mengoperasikan pembangkit listrik tenaga air (PLTA). PLTA dipilih karena besarnya sumber daya air dari tiga danau di sekitar Sorowako yakni Danau Matano, Mahalona dan Towuti yang kemudian dialirkan ke Sungai Larona. Saat ini Perseroan mengoperasikan tiga PLTA, yakni Larona, Balambano, dan Karebbe, dengan total kapasitas produksi listrik 365 MegaWatt (MW).

## New and Renewable Energy Development

Since starting its activities in Sorowako, PT Vale has developed renewable energy by operating hydroelectric power plants. Hydropower was chosen due to the huge water resources of three lakes around Sorowako, Lake Matano, Mahalona and Towuti that flowed into the Larona River. The Company currently operates three hydroelectric plants, Larona, Balambano and Karebbe, with a total production capacity of 365 MegaWatt (MW).

Pengoperasian PLTA menjadi bentuk kontribusi PT Vale dalam upaya mengurangi emisi gas rumah kaca. PLTA lebih ramah lingkungan dibandingkan pembangkit listrik thermal berbahan bakar fosil, karena mampu mereduksi emisi karbon sebesar sebesar 1.096.705 ton CO<sub>2</sub>eq per tahun dengan asumsi bahan bakar yang digunakan yaitu batubara atau 855.356 ton CO<sub>2</sub>eq per tahun jika bahan bakar yang digunakan adalah diesel. [305-5]

Operating with hydropower is a form of PT Vale's contribution to reducing greenhouse gas (GHG) emissions. Hydroelectric power is more environmentally friendly than fossil fuel thermal power plants as they can reduce carbon emissions by 1,096,705 ton CO<sub>2</sub>eq per year, assuming the fuel used is coal or 855,356 tonnes of CO<sub>2</sub>eq per year if the fuel used is diesel. [305-5]

### Mereduksi Emisi Karbon Reduce Carbon Emissions



▼ 1.096.705  
ton CO<sub>2</sub>eq per tahun  
ton CO<sub>2</sub>eq per year



PLTA menjadi sumber pasokan energi terbesar PT Vale untuk proses pengolahan bijih nikel dan produksi nikel dalam *matte*. Selama tahun 2019 volume pemakaian energi yang bersumber dari listrik PLTA mencapai 8.491.709 GJ. Jumlah tersebut setara dengan 36,99% dari total konsumsi energi pada tahun 2019 sebesar 22.958.664 GJ, dan lebih rendah dibanding tahun 2018 sebanyak 9.094.556 GJ. Penurunan tersebut dipengaruhi oleh adanya project *Canal Lining* pada Larona Canal.

Hydroelectric Power is PT Vale's largest source of energy supply for nickel ore processing and nickel in *matte* production. During 2019 the volume of energy consumption derived from hydroelectric power reached 8,491,709 GJ, equivalent to 33.54% of total energy consumption in 2019 of 23,301,151 GJ. This is lower than the 9,094,556 GJ derived from hydroelectric power in 2018, due to the Larona Canal lining project undertaken in 2019.



## Pemanfaatan Energi Bersumber dari Listrik PLTA [302-1]

### Energy Utilization Sourced from Hydroelectric Power

Tahun Year	Pemakaian Daya Listrik (MWH) Power Consumption (MWH)	Pemakaian Energi (GJ) Energy Consumption (GJ)
2019	2,358,808	8,491,709
2018	2,526,266	9,904,556
2017	2,555,953	9,194,231



Selama periode pelaporan PT Vale juga melanjutkan program penggunaan biodiesel, yang merupakan pencampuran bahan bakar diesel dan bahan bakar nabati (BBN), yakni Fatty Acid Methyl Ester (FAME) hingga 20%. Biodiesel digunakan sebagai bahan bakar untuk kendaraan bermotor operasional Perseroan. Hal itu sejalan dengan Peraturan Menteri ESDM No. 12/2015 Tentang Penyediaan, Pemanfaatan, dan Tata Niaga Bahan Bakar Nabati sebagai Bahan Bakar Lain.

Total volume pemakaian biodiesel sepanjang tahun 2019 mencapai 86,78 juta liter, naik 7,68 juta liter atau 9,71% dibanding tahun 2018 sebanyak 79,1 juta liter. Penyebabnya adalah berkurangnya suplai listrik karena proyek Canal Lining sehingga memerlukan pengoperasian pembangkit tenaga listrik tambahan berbahan bakar diesel.

During the reporting period, PT Vale also continued its program of using biodiesel, a mixture of diesel fuel and biofuels (BBN), namely Fatty Acid Methyl Ester (FAME) up to 20%. Biodiesel is used to fuel the Company's operational motor vehicles. This is in line with the Minister of Energy and Mineral Resources Regulation No. 12/2015 Regarding the Provision, Utilization and Business Administration of Biofuels as Other Fuels.

The total biodiesel volume in 2019 reached 86.78 million liters, up 7.68 million liters or 9.71% compared to 79.1 million liters in 2018. This was due to the reduction in the supply of electricity for the Laron Canal Lining project that required the operation of additional diesel-powered power plants.

## Volume dan Persentase Pemakaian Bahan Bakar Nabati

### Biofuels Volume and Percentage Used

Tahun Year	Volume Bahan Bakar (Juta Liter) Fuel Volume (Million Litre)				Persentase Percentage
	Bahan Bakar Minyak (BBM) Fossil Fuel			Bahan Bakar Nabati (BBN) Biofuel	
	HSFO	HSD	Jumlah Total		
2019	226.33	86.96	313.29	17.39	5.55
2018	250.90	67.66	318.56	11.94	3.75
2017	271.18	63.33	334.51	11.18	3.34





### Boiler Listrik Berbasis Energi Terbarukan

Sebagai upaya meningkatkan kinerja lingkungan dalam operasi pabrik pengolahan nikel, PT Vale mengoperasikan boiler listrik berbasis energi terbarukan yang resmi beroperasi sejak akhir Mei 2019. Sebelumnya, pada Februari 2019 boiler listrik ini telah berhasil diujicobakan. Pengoperasian boiler listrik merupakan yang pertama di Asia Tenggara untuk industri smelter.

Investasi boiler listrik berbasis energi terbarukan menelan investasi sebesar 3,9 juta dollar AS. Selain ramah lingkungan, boiler listrik berbasis energi terbarukan juga mampu menghasilkan uap lebih efisien dan menghemat biaya produksi uap sebesar AS\$5.029.933 per tahun atau setara Rp70.419.060.785 per tahun (kurs Rp14.000/AS\$). Keuntungan lain adalah meniadakan penggunaan HSFO sebesar 67.047 barel per tahun dengan nilai penghematan signifikan mengingat harga rata-rata HSFO adalah AS\$77,35 per barel, perhitungan Desember 2018.

### Renewable Energy-Based Electric Boilers

To improve environmental performance in the nickel processing plant operations, PT Vale operates renewable energy-based electric boilers that have been in operation since the end of May 2019, following successful trials in February 2019. These are the first in Southeast Asia to be used in the smelter industry.

Renewable energy-based electricity boiler investments amounted to US\$3.9 million. In addition to being environmentally friendly, renewable energy-based electric boilers can also produce steam more efficiently and reduce steam production costs by US\$5,029,933, or Rp70,419,060,785 per year (Rp14,000 / US\$). Another advantage was eliminating the use of HSFO by 67,047 barrels per year with significant savings as the average price of HSFO as of December 2018 was US\$77.35 per barrel.



## Mengelola Limbah dan Menjaga Danau [306-1]

PTVale melakukan beberapa upaya untuk mengoptimalkan pengelolaan dan pengolahan limbah dengan investasi sebesar AS\$9.514.261. Kegiatan yang dilakukan adalah:

- Pemanfaatan slag untuk jalan khusus tambang Sorowako dan Petea.
- Pemanfaatan pelumas bekas untuk substitusi bahan bakar HSFO di pabrik.
- Teknologi Road Recycle RM500 untuk konservasi material road base jalan asphalt. Penggunaan material reject dryer untuk lapisan perkerasan (*base road*) jalan baru di fasilitas pabrik dan pendukung.

Perseroan memastikan kualitas olahan air limbah telah memenuhi ketentuan baku mutu sebelum dilepaskan ke danau maupun badan air lain di sekitar area operasi. Pengelolaan harus memenuhi ketentuan baku mutu sesuai Permen Lingkungan Hidup No.9 Tahun 2006 Tentang Baku Mutu Air Limbah Bagi Usaha dan atau Kegiatan Pertambangan Bijih Nikel. Setiap bulan juga dilakukan analisa terhadap parameter logam oleh laboratorium pihak ke tiga yang terakreditasi, menggunakan metode SNI 6989.59:2008 Air dan Air Limbah, serta Standard Methods for the Examination of Water and Wastewater 21th Edition (2005), 1060, Collection and Preservation. Dari hasil pemeriksaan, diketahui bahwa kualitas hasil olahan air limbah telah memenuhi baku mutu. Hasil pengukuran dilaporkan secara berkala ke pemerintah daerah maupun pemerintah pusat. [306-5]

## Waste Management and Lake Protection [306-1]

PTVale has initiated several steps to optimize waste management and treatment at a cost of US\$9,514,261. The activities carried out include:

- Using slag on the Sorowako and Petea mining special roads.
- Recycling used oil as a HSFO fuel substitute in factories.
- RM500 Road Recycle Technology for asphalt road base material. Using reject dryer material for new base roads in factories and supporting facilities.

The Company ensures that the quality of treated wastewater meets the quality standards required before being released back into water bodies around the operation areas. The quality standards are in accordance with the 2006 Environmental Regulation No.9 concerning Quality Standards for Wastewater for Nickel Ore Mining Enterprises and or Activities. Every month an analysis of metal parameters is also carried out by an accredited third party laboratory, using the SNI 6989.59: 2008 method for Water and Wastewater, and Standard Methods for the Examination of Water and Wastewater 21th Edition (2005), 1060, Collection and Preservation. The inspection results reveal the quality of the processed wastewater and whether it has met the quality standards. The measurement results are reported regularly to the local and central government. [306-5]





## Hasil Pengukuran Kualitas Cairan Limbah

Liquid Waste Quality Measurement Results [306-1]

Lokasi Pengukuran Measurement Location	Tahun Year	Volume Diolah (m <sup>3</sup> ) Volume Processed (m <sup>3</sup> )	Hasil Pengolahan Tiap Parameter Processing Result per Parameter				
			TSS <200 ppm	Cr Total 0.5 ppm	Cr <sup>6+</sup> 0.1 ppm	Fe 5 ppm	Ni 0.5 ppm
Anak Sungai Lamoare Lamoare Creek (LC3)	2019	5,372,197	11	0.04	0.03	0.31	0.01
	2018	8,454,642	4	0.05	<0.05	0.24	0.05
	2017	12,210,453	5	0.10	<0.005	1.03	0.03
Lamangka (LMK)	2019	32,489,769	8	0.03	0.04	0.19	0.02
	2018	28,781,429	4	0.03	<0.05	0.14	0.03
	2017	40,734,067	3	0.04	<0.005	0.27	0.03
Petea Timur East Petea	2019	6,923,937	39	0.04	0.04	1.36	0.03
	2018	6,346,374	11	0.06	<0.05	1.30	0.04
	2017	12,108,891	16	0.08	<0.005	1.02	0.08
Petea Barat West Petea	2019	10,888,252	12	0.04	<0.05	0.27	0.02
	2018	23,515,477	7	0.05	<0.05	0.32	0.05
	2017	29,182,579	22	0.04	<0.005	1.13	0.07
Petea Timur Jauh Far East Petea	2019	2,002,447	22	0.04	0.03	1.03	0.02
	2018	4,926,964	15	0.07	<0.05	1.34	0.03
	2017	7,384,582	13	0.10	<0.005	1.05	0.03
Lorraine	2019	1,281,997	8	0.02	0.02	0.11	0.01
	2018	303,285	3	0.01	<0.05	0.23	0.02
	2017	545,228	5.59	0.03	<0.005	0.14	0.02
Kathryn	2018	1,700,215	4	0.02	0.02	0.44	0.05
	2018	339,140	5	0.03	<0.05	0.96	0.06
	2017	545,228	8	0.04	<0.05	0.40	0.02

Sampai dengan akhir tahun 2019, Perseroan memastikan kondisi danau-danau beserta ekosistem dan habitatnya tetap terjaga, sebagai bentuk dukungan pada Surat Keputusan Menteri Pertanian No. 274/Kpts/Um/4/1979 tanggal 24 April 1979, yang menetapkan kawasan Danau Matano, Mahalona dan Towuti sebagai kawasan konservasi Taman Wisata Alam. [304-1]

PT Vale melakukan upaya dalam meningkatkan daya dukung ekosistem, di antaranya:

- Melakukan reklamasi dan revegetasi lahan bekas tambang.
- Pelestarian Kayu Uru (*elmeria tsiampacca*) yang merupakan jenis kayu bernilai ekonomis di area reklamasi bekas tambang blok Sorowako dan Petea.
- Mengimplementasikan budidaya padi SRI organik yang mendukung pelestarian lingkungan untuk mengurangi emisi gas CH<sub>4</sub>, NO<sub>2</sub>, CO<sub>2</sub>, serta menjaga ekosistem dan memperbaiki daya dukung dan produktifitas lahan.

Up to the end of 2019, the Company has ensured that the condition of the lakes, ecosystems and habitats have been maintained, in support of the Ministry of Agriculture Decree No. 274/Kpts/Um/4/1979 dated April 24, 1979 that established the Lake Matano, Mahalona and Towuti areas as conservation areas for Nature Tourism Parks. [304-1]

PT Vale's efforts to improve the ecosystems' carrying capacity, included:

- Reclaiming and revegetating ex-mining land.
- Preserving Uru wood (*elmeria tsiampacca*), as it has economic value, in the former mining blocks reclamation areas in the Sorowako and Petea blocks.
- Implementing organic SRI rice cultivation to support environmental preservation, reduce CH<sub>4</sub>, NO<sub>2</sub>, CO<sub>2</sub> gas emissions, and maintain ecosystems and improve carrying capacity and land productivity.



# KINERJA LINGKUNGAN

## ENVIRONMENTAL PERFORMANCE

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### Pengelolaan Dampak Lingkungan

Environment Impact  
Management







## Pendekatan Manajemen Management Approach

[103-1][103-2][103-3]

PT Vale mengelola potensi dampak lingkungan dari kegiatan operasi pertambangan dan produksi nikel dalam *matte*, guna meminimalkan ancaman kerusakan lingkungan.

PT Vale manages potential environmental impacts from its mining operations and nickel in *matte* production to minimize the threat of environmental damage.



## Komitmen Commitment

Penerapan Environment Management System (EMS) ISO 14001:2015 dan Sertifikasi ISO 14001:2015.

Implementation of ISO 14001: 2015 Environment Management System (EMS) and ISO 14001: 2015 Certification.



## Kebijakan Policy

- UU Nomor 32 Tahun 2009 Tentang Perlindungan dan Pengelolaan Lingkungan Hidup.
- Permen LH No.4 Tahun 2014 Tentang Baku Mutu Emisi Sumber Tidak Bergerak Bagi Usaha dan/ atau Kegiatan Pertambangan.
- Peraturan Pemerintah No.101 Tahun 2014 Tentang Pengelolaan Limbah B3.
- 2009 Law Number 32 concerning Environmental Protection and Management.
- 2014 Minister of Environment Regulation No.4 concerning Emission Quality Standards for Immovable Sources for Mining Businesses and Activities.
- 2014 Government Regulation No.101 concerning Hazardous Waste Management.







## Realisasi Realization

- Realisasi biaya lingkungan tahun 2019 AS\$10.460.311 juta.
- Konsumsi energi 23.301.151 GJ, turun 11% dibanding tahun 2018.
- Kadar emisi SO<sub>2</sub> di bawah ambang batas baku mutu 0,86 mg/Nm<sup>3</sup>.
- Realization of environmental costs in 2019 US\$10,460,311 million.
- 2019 energy consumption of 23,301,151 GH, an 11% decrease in consumption compared to 2018.
- SO<sub>2</sub> emission levels below the quality standard threshold of 0.86 mg / Nm<sup>3</sup>.



## Sumber Daya Resources

Alokasi biaya lingkungan untuk reklamasi, pengelolaan kualitas air permukaan, pengelolaan kualitas udara, pengelolaan limbah mengandung bahan berbahaya dan beracun (B3), pemantauan lingkungan serta pekerjaan sipil lain.

Allocation of environmental costs for reclamation, surface water quality management, air quality management, waste management containing hazardous and toxic substances, ecological monitoring and other civil works.



## Inisiatif Khusus Tahun 2019

### Special 2019 Initiative

Penyusunan Rencana Aksi PROPER HIJAU 2020 dan pembentukan Komite Ad Hoc.

Preparation of the 2020 GREEN PROPER Action Plan and formation of an Ad Hoc Committee.



## Evaluasi Evaluation

Pelaporan berkala kepada pihak-pihak berwenang.

Periodic reporting to the authorities





# Pemanfaatan Energi

## Energy Usage

### Konsumsi Energi [302-1]

Konsumsi energi digunakan untuk operasional alat berat pada operasi pertambangan bijih nikel dan untuk proses produksi nikel dalam *matte*. Energi yang dikonsumsi berupa energi listrik yang bersumber dari tiga PLTA dan pembangkit listrik thermal, serta penggunaan bahan bakar fosil.

Penghitungan konsumsi energi dilakukan dengan metode penjumlahan volume sumber energi yang digunakan, yang dikonversi ke dalam satuan Gigajoule (GJ) menggunakan konversi International Energy Agency (IEA). Total konsumsi energi selama tahun 2019 mencapai 22.958.664 GJ, turun 2.931.975 GJ atau 11% dibanding tahun 2018 sebesar 25.890.639 GJ. Penurunan disebabkan karena adanya *canal lining project* pada Larona Canal.

### Energy Consumption [302-1]

Energy consumption is used for massive equipment operations in nickel ore mining operations and the nickel in *matte* production process. The energy consumed is electrical energy sourced from three hydropower plants and thermal power plants, and fossil fuels.

The energy consumption calculation uses the sum method for the volume of energy sources used, which is then converted into Gigajoules units (GJ) using the International Energy Agency (IEA) conversion. Total energy consumption in 2019 reached 22,958,664 GJ, down 2,931,975 GJ or 11% compared to 25,890,639 GJ in 2018. The decrease was due to the Larona Canal lining project.

### Volume Pemakaian Energi di Dalam Organisasi (GJ)

Energy Usage Volumes within the Organization (GJ) [302-1]

Sumber Energi Energy Sources	Peruntukan Allotment	2019	2018	2017
Energi Tidak Terbarukan Non-renewable Energy				
Batubara Coal	Tanur pembakar Firing Kilns	4,354,950	4,518,878	4,355,610
High Speed Diesel HSD	Kendaraan berat Heavy Vehicles	2,869,990	3,075,048	2,909,845
High Sulfur Fuel Oil* HSFO	<ul style="list-style-type: none"> <li>• Tanur Pengereng</li> <li>• Tanur Pereduksi</li> <li>• Drying Kilns</li> <li>• Reduction Kilns</li> </ul>	6,719,515	9,170,200	9,916,302
Bensin Gasoline	Kendaraan Ringan Light Vehicles	13,989	14,466	14,433
HSD (PLTD) Diesel Power Plant	Pembangkit thermal Thermal generators	508,511	17,490	5,248
Energi Terbarukan Renewable Energy				
PLTA Hydroelectric Power Plant	Pabrik Pengolahan Processing Plants	8,491,709	9,094,557	9,194,231
Jumlah Total		22,958,664	25,890,639	26,395,669

\* Penghitungan yang disajikan tidak termasuk pemanas.

\* Calculation presented excluded boilers





Sebagian listrik yang dihasilkan dari PLTA disalurkan ke PT PLN (Persero) dengan pembayaran harga yang disepakati. Pasokan listrik tersebut kemudian didistribusikan oleh PT PLN (Persero) kepada masyarakat di Kabupaten Luwu Timur.

A portion of the electricity generated from hydropower is channeled to PT PLN (Persero) at an agreed payment price. The electricity supply is distributed by PT PLN (Persero) to the community in East Luwu Regency.

### Volume Energi yang Disalurkan (GJ)

Volume of Energy Distributed (GJ)

Sumber Energi Energy Sources	Peruntukan Allotment	2019	2018	2017
PLTA Hydroelectric Power Plants	Listrik untuk komunitas melalui pasokan PT PLN (Persero) Electricity for the communities through PT PLN (Persero)	10,823	13,810	14,130

### Konsumsi Energi dan Biaya Produksi

Total biaya energi pada tahun 2019 mencapai 8,84% dari biaya produksi nikel dalam *matte*. Besaran biaya produksi nikel *matte* pada tahun 2019 mencapai AS\$659 juta, lebih rendah dibanding tahun 2018 sebesar AS\$673 juta. Efisiensi dicapai dengan optimalisasi pemanfaatan energi dan menekan biaya produksi.

### Energy Consumption and Production Costs

The total energy cost in 2019 accounted for 8.84% of the nickel in *matte* production costs, which in 2019 reached US\$659 million, lower than US\$673 million in 2018. Efficiencies were achieved by optimizing energy use and reducing production costs.



## Biaya Produksi Nikel dalam Matte

### Nickel In Matte Production Costs

Komponen Biaya Produksi Production Cost Component	2019		2018		2017	
	Biaya (AS\$ Juta) Cost (Million US\$)	%	Biaya (AS\$ Juta) Cost (Million US\$)	%	Biaya (AS\$ Juta) Cost (Million US\$)	%
BBM dan Pelumas Fuel and Lubricants	146	22	156	23	127	20
Depresiasi dan Amortisasi Depreciation, Amortization, and Depletion Cost	131	20	129	19	127	20
Bahan Pembantu Indirect Materials	119	18	114	17	113	18
Biaya Karyawan Employee Costs	77	12	85	13	85	14
Batubara Coal	44	7	62	9	47	7
Pajak dan Asuransi Tax and Insurance	29	4	37	5	27	4
Royalti Royalties	16	2	16	2	13	2
Lainnya* Others	94	14	74	12	84	15
Beban Pokok Produksi Production Cost	656	100	673	100	623	100

\*Terdapat perubahan data tahun 2017 [102-48]

\*Restatement 2017 [102-48]

Sepanjang tahun 2019 ada beberapa program pengembangan berkelanjutan atau *continuous improvement* (CI) untuk mendukung program efisiensi energi:

- *Dryer Burner Improvement*
- *Fuel Management System*
- *High Voltage Electrode Boiler*

### Intensitas Energi [302-3]

Total pemakaian energi untuk setiap ton produksi nikel dalam *matte* atau intensitas energi pada tahun 2019 adalah 323,25 GJ/Ton. Nilai tersebut lebih rendah dibanding tahun 2018 sebesar 323.25 GJ/ton. Penyebabnya adalah beberapa inovasi energi yang diterapkan antara lain *High-Voltage Electrode Boiler* (HVEB) dan *diesel fuel saving control* di *haul truck mining*.

During 2019 several continuous improvement programs (CIs) were implemented, to support energy efficiency programs including:

- Dryer Burner Improvement
- Fuel Management System
- High Voltage Electrode Boiler

### Energy Intensity [302-3]

The total energy consumption for each ton of nickel in *matte* production or energy intensity in 2019 was 323.25 GJ/Ton, lower than 346.10 GJ/ton in 2018. This lower energy intensity in 2019 was due to energy innovations being implemented including High-Voltage Electrode Boiler (HVEB) and diesel fuel saving controls in haul truck mining.





Hasil Pengukuran Intensitas Energi Energy Intensity Measurement Results	Uraian Description	Satuan Unit	2019	2018	2017
	Jumlah Produksi Nikel Total Nickel Production	Ton	71,025	74,806	76,807
	Jumlah Energi Terpakai Total Energy Used	GJ	22,958,664	25,890,639	26,395,669
	Intensitas Energi Energy Intensity	GJ/ton	323.25	346.10	343.66

## Pengendalian Emisi Emission Control

### Pengendalian Emisi SO<sub>2</sub> [305-7]

Emisi SO<sub>2</sub> bersumber dari penggunaan sulfur serta pemakaian bahan bakar HSFO dan batubara. Emisi SO<sub>2</sub> dilepaskan ke udara melalui cerobong dari fasilitas pengolahan bijih nikel dalam proses produksi nikel dalam *matte*. Secara berkala PT Vale melakukan pemantauan dan penghitungan kadar emisi SO<sub>2</sub> yang dilepaskan cerobong. Penghitungan dilakukan berdasarkan Permen LH No.4 Tahun 2014 Tentang Baku Mutu Emisi Sumber Tidak Bergerak Bagi Usaha dan/atau Kegiatan Pertambangan. Penghitungan menggunakan metode neraca massa, dengan menentukan intensitas emisi melalui perbandingan berat SO<sub>2</sub> yang diemisikan dengan berat produk yang dihasilkan. Penghitungan emisi SO<sub>2</sub> dinyatakan dalam satuan kg/kg Ni.

PT Vale memastikan kadar emisi SO<sub>2</sub> telah memenuhi ambang batas baku mutu sebesar 0,86 mg/Nm<sup>3</sup>. Hasil ini tercapai karena upaya yang telah dilakukan, di antaranya:

- Stabilisasi proses pada Tanur Reduksi yang berpengaruh pada konsumsi Sulfur cair.
- Konversi penggunaan bahan bakar MFO menjadi Coal pada Tanur Pengering dan Tanur Reduksi no. 2 dan 3 dimana kadar sulfur pada batubara lebih rendah dari MFO.
- Konversi diesel konvensional menjadi diesel B20 sejak awal tahun 2019 dimana kadar sulfur biodiesel lebih rendah dari diesel konvensional.

### SO<sub>2</sub> Emission Control [305-7]

SO<sub>2</sub> emissions result from the use of sulfur, HSFO fuels and coal. SO<sub>2</sub> emissions are released into the air through the nickel ore processing facility chimneys during the nickel in matte production process. PT Vale regularly monitors and calculates SO<sub>2</sub> emission levels released from the chimneys. The calculation is based on 2014 LH Regulation No.4 concerning Quality Standards for Immovable Emission Sources for Business and / or Mining Activities. The calculation uses the mass balance method, by determining the intensity of emissions through the weight ratio of SO<sub>2</sub> emitted by the weight of the resulting product. SO<sub>2</sub> emission calculations are stated in kg/kg Ni.

PT Vale ensured the SO<sub>2</sub> emission levels met the quality standard limits by the Government (0.86 mg/Nm<sub>3</sub>) by implementing a number of initiatives:

- A stabilization process in the Reduction Kilns directed at liquid sulfur usage.
- Converting the use of MFO fuel to coal in Drying Kilns and Reduction Kilns no. 2 and 3 where the sulfur content in coal is lower than MFO.
- Converting conventional diesel to B20 diesel since the beginning of 2019 where the sulfur biodiesel content is lower than conventional diesel.



## Hasil Pengukuran Intensitas Emisi SO<sub>2</sub> SO<sub>2</sub> Emission Intensity Measurement Results

Uraian Description	Satuan Unit	2019	2018	2017
Jumlah Produksi Nikel Total Nickel Production	Ton	71,025	74,806	76,809
Jumlah Emisi SO <sub>2</sub> Total SO <sub>2</sub> Emissions	Ton	51,435	55,040	57,225
Intensitas Emisi Emissions Intensity	Ton SO <sub>2</sub> / Ton Ni	0.72	0.74	0.75
Baku Mutu Quality Standards	mg/Nm <sup>3</sup>	0.80	0.86	0.86
Keterangan Remarks		Baku Mutu berlaku sejak Oktober 2019 Quality Standards have been in effect since October 2019	Memenuhi Baku Mutu Meets Quality Standards	Memenuhi Baku Mutu Meets Quality Standards

## Pengendalian Partikulat [305-7]

Pengukuran partikulat dilakukan sesuai USEPA Method 5 dan dinyatakan dalam satuan mg/Nm<sup>3</sup>. Nilai baku mutu partikulat adalah 0,22 mg/Nm<sup>3</sup>. Dari hasil pengukuran diketahui konsentrasi partikulat yang dihasilkan selama tahun 2019 diketahui telah memenuhi baku mutu.

## Particulate Control [305-7]

Particulate measurements were carried out based on USEPA Method 5 and were expressed in units of mg/Nm<sup>3</sup>. The particulate quality standard is 0.22 mg/Nm<sup>3</sup>. From the measurement results, it can be seen that particulate concentrate produced in 2019 met the quality standard.

## Hasil Pengukuran Intensitas Partikulat Particulate Intensity Measurement Results

Uraian Description	Satuan Unit	2019	2018	2017
Jumlah Produksi Nikel Total Nickel Production	Ton	71,025	74,806	76,806
Jumlah Partikulat yang Diemisikan Number of Particulates Emitted	Ton	877	1,778	1,802
Intensitas Partikulat Particulate Intensity	Ton Partikulat/ Ton Nikel Matte Ton particulate / Ton Nickel in Matte	0.010	0.019	0.019





## Pengelolaan dan Pengolahan Limbah Waste Management and Processing

### Pengelolaan Limbah Padatan B3

Jenis limbah lain yang dihasilkan dari proses produksi nikel dalam *matte* adalah slag nikel, yang terdiri dari *furnace slag* dan *converter slag*. Perseroan memanfaatkan slag nikel berdasarkan Izin Pemanfaatan Limbah B3 Nomor SK 121/Menlhk/Setjen/PLB.3/2/2018. Total volume *slag* nikel yang dimanfaatkan selama tahun 2019 mencapai 3.918.247 ton, yang digunakan sebagai bahan baku material untuk konstruksi jalan tambang dan konstruksi lapis atas jalan khusus tambang.

PT Vale menunggu pemberlakuan ketentuan baru yang mengatur limbah slag nikel sebagai bukan limbah B3, sehingga pemanfaatannya lebih dapat disesuaikan dengan kebutuhan. Sampai dengan akhir periode pelaporan hal tersebut masih dalam kajian KLHK, dengan mengacu Peraturan Pemerintah Nomor 101 Tahun 2014 Tentang Pengelolaan Limbah B3. [306-2][MM3]

### Hazardous Solid Waste Management

Another type of waste produced from the nickel in matte production process is nickel slag, which consists of furnace slag and converter slag. The Company use of nickel slag is permitted under the Hazardous Waste Utilization License Number SK 121/Menlhk/Setjen/PLB.3/2/2018. The total volume of nickel slag used in 2019 was 3,918,247 tons, and was used as a raw material for mining road construction and special mine road construction.

PT Vale is waiting for the enactment of new provisions governing non-hazardous waste nickel slag so that its use can be adjusted to its needs. At the end of the reporting period, this matter was still undergoing a KLHK study regarding the Government's 2014 Regulation Number 101 concerning Hazardous Waste Management. [306-2][MM3]

### Jenis dan Volume Limbah Padatan B3 dari Produksi Nikel Dalam *Matte*

Types and Volume of Hazardous and Toxic Solid Waste From Nickel In Matte Production

Jenis Limbah Type of Waste	Satuan Unit	Volume Dihasilkan Volume Generated		
		Tahun Year		
		2019	2018	2017
Furnace Slag	Ton	3,782,530	4,112,126	4,180,479
Converter Slag		509,202	515,701	478,545
Jumlah Total		4,291,732	4,627,827	4,659,024

Untuk limbah padatan lain yang mengandung B3 dikelola dan diolah sesuai karakteristik masing-masing, baik untuk keperluan internal maupun diserahkan kepada pihak ketiga berizin. Uraian tentang hal ini disampaikan dalam tabulasi berikut.

Other hazardous and toxic solid waste is managed and processed according to their respective characteristics, both internally or sent to licensed third parties. A description of this is summarized in the following table.

## 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)		
		2019	2018	2017
Oli dan Gemuk Bekas Used lubricants and grease	Sebagai tambahan bahan bakar pada proses pengolahan bijih nikel pada dryer dan kiln Fuel additive for nickel ore processing in the dryers and kilns	1,775.9	1,281.70	1,206.40
Terak Tanur Listrik Furnace slag	Sebagai penunjang operasi tambang Mining operations support	3,782,530	4,122,565	4,180,479
Filter, Kain Majun dan Material Terkontaminasi Filters, Cloth, and Contaminated Materials	Sebagai penunjang operasi tambang Mining operations support	320.9	219.6	142.2
Sebagai Penunjang Operasi Tambang. Mining Operations Support	Diserahkan pada pihak ketiga Sent to third parties	39.5	55.9	13.8
Baterai dan Aki Bekas Used batteries		53.8	51.6	54.3
Cat dan Bahan Kimia Paints and chemicals		2.2	9.8	3.0
Asbes Asbestos		0.9	2.0	0.87
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	2.4	1.56	2.6

Seluruh limbah *slag* nikel diangkut menuju tempat penampungan dengan prosedur ketat untuk memastikan keamanan dan mencegah kecelakaan selama pengangkutan. Pengangkutan menuju lokasi yang ditentukan pihak ketiga, sepenuhnya menjadi tanggung jawab pihak ketiga, namun PT Vale memberlakukan prosedur ketat untuk mencegah kecelakaan selama pengangkutan. Selama tahun 2019 tidak ada laporan maupun pengaduan terkait proses pengangkutan limbah *slag* nikel.

All nickel slag waste is transported to the storage facilities under strict procedures to ensure safety and to prevent spills during transportation. Transportation to a location determined by a third party is entirely the responsibility of the third party, but PT Vale applies strict procedures to prevent retailing during shipping. During 2019 there were no reports or complaints related to transporting nickel slag waste.

## Pengelolaan Limbah Padatan Lainnya

Limbah padatan lain yang dihasilkan dari kegiatan penambangan bijih nikel berupa *overburden* dan lapisan tanah pucuk (*top soil*), yang termasuk limbah bukan B3 dan dikelola dengan cara diolah menjadi material timbun dalam proses rehabilitasi/ reklamasi pasca-tambang. Limbah padatan lain adalah limbah domestik dan limbah *scrap* logam, yang dihasilkan dari kegiatan pengolahan/ penunjang dan diolah dengan cara disimpan di tempat penampungan akhir di area bekas tambang serta di *scrap yard*.

## Other Solid Waste Management

Other solid waste from the nickel ore mining activities includes overburden and topsoil that does not include hazardous and toxic waste and this is managed by storing in stockpiles for the post-mining rehabilitation / reclamation process. Other solid waste such as domestic waste and scrap metal waste is produced from processing / supporting activities and processed by storing it in former mining areas and scrap yards.





### 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		
		2019	2018	2017
Tanah Pucuk Topsoil	WMT	413,559	468,455	294,470
Overburden		42,968,601	40,574,694	35,373,104

### 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	Jumlah Diolah (Ton) Total Processed (Ton)		
		2019	2018	2017
Limbah Domestik Domestic Waste	Ton	2,237	5,832	4,148
Limbah Scrap Logam Metal Scrap Waste		9,985	6,922	6,304





# KINERJA LINGKUNGAN

## ENVIRONMENTAL PERFORMANCE

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### Reklamasi Pasca Tambang [MM1, MM10] Post-Mining Rehabilitation











## Pendekatan Manajemen

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

PT Vale melakukan reklamasi lahan pascatambang, sebagai kepatuhan terhadap ketentuan hukum dan bertujuan memperbaiki ekosistem lahan pascatambang sehingga menghasilkan nilai tambah bagi lingkungan.

PT Vale undertakes rehabilitation of post-mining land, in compliance with legal provisions with the aim of improving the post-mining land ecosystem to deliver added value to the environment.



## Komitmen

Commitment

Pembatasan luas lahan terbuka untuk kegiatan operasi pertambangan maksimal sesuai dengan luas izin sisa lahan terbuka yang telah disetujui ESDM dalam laporan jaminan reklamasi periode 5 tahunan 2018 - 2022.

PT Vale limits the area of open land for mining operation activities to the maximum in accordance with the permits for remaining open land, as approved by ESDM in the reclamation guarantee report for the 5-year period (2018-2022).



## Kebijakan Policy

- Peraturan Menteri ESDM No.7 Tahun 2014 Tentang Reklamasi dan Pascatambang
- Rencana pengelolaan keanekaragaman hayati di wilayah operasi pertambangan dan tertuang dalam Persetujuan 188.4/66/II/BAPEDALDA
- 2014 ESDM Ministerial Regulation No.7 concerning Reclamation and Post mining
- Biodiversity management plans in the mining operations areas as stated in the 188.4/66/II/BAPEDALDA Agreement





## Realisasi Realization

- Luas lahan reklamasi pascatambang tahun 2019: 81,09 ha.
- Luas kumulatif reklamasi pascatambang tahun 2019: 4.249,45 ha.
- Luas lahan yang sudah dibuka dan diolah: 286,56 ha
- The area of post-mining rehabilitation land in 2019 was 81.09 ha
- The cumulative area of postmining rehabilitation in 2019 was 4,249.45 ha
- The area of land that was been cleared and processed to date is 286.56 ha



## Sumber Daya Resources

- Alokasi dana reklamasi pascatambang 2019: AS\$2.948.798,64
- Pusat pembibitan benih (*nursery*) yang memproduksi 700 ribu bibit per tahun.
- Allocation of post-mining rehabilitation funds of US\$2,948,798,64 in 2019.
- A nursery center that produces 700 thousand seedlings per year



## Inisiatif Khusus Tahun 2019

### Special 2019 Initiative

Meningkatkan komposisi pohon perintis lokal (*pioneer tree species*) hingga 40% pada kegiatan revegetasi tanaman perintis

Policy to Increase the composition of local pioneer trees species to 40% for revegetation activities of pioneer plants



## Evaluasi Evaluation

Evaluasi pelaksanaan program/kegiatan reklamasi pascatambang dilakukan secara berkala oleh ESDM dalam agenda pencairan jaminan reklamasi dan environment Award, dan oleh KLHK dalam agenda PROPER.

Evaluation of the post-mining rehabilitation programs / activities is carried out regularly by ESDM in the disbursement reclamation guarantee and the Environment Award agenda, and KLHK in the PROPER agenda.



## Pengelolaan Dampak Operasi Pertambangan

Kegiatan pertambangan yang dijalankan PT Vale merupakan pertambangan terbuka, meliputi proses pembukaan lahan dan pengupasan lapisan permukaan tanah; penggalian material tanah dan material tambang; serta pengangkutan material tanah dan material tambang. Potensi dampak yang ditimbulkan antara lain berupa perubahan rona alam dan ekosistem di atasnya, meningkatnya emisi debu maupun partikulat, penurunan kualitas air permukaan serta erosi. [304-2]

## Impact Management of Mining Operation

Mining activities carried out by PT Vale involve open-pit mining, including the process of land clearing and stripping the topsoil; excavation of soil and mining materials; and the transport of soil and mining materials. Potential impacts include changes in the natural landscape and the ecosystem above, increased dust and particle emissions, decreased surface water quality and erosion. [304-2]

### Dampak Kegiatan Operasi Pertambangan dan Pengelolaannya Impact of Mining Operations and Management Activities [304-2]

Kegiatan Operasi Operational Activities	Dampak Ditimbulkan Impact Caused	Pengelolaan Management
<b>Pembukaan lahan</b> Land clearing	<ul style="list-style-type: none"> <li>Penghilangan vegetasi dan penebangan pohon.</li> <li>Kerusakan ekosistem dan habitat flora/fauna.</li> <li>Removal of vegetation and trees.</li> <li>Damage to flora / fauna ecosystems and habitats.</li> </ul>	<ul style="list-style-type: none"> <li>Dilakukan manual tanpa pembakaran lahan.</li> <li>Identifikasi dan pemindahan spesies dilindungi.</li> <li>Performed manually without burning land.</li> <li>Identification and relocation of protected species.</li> </ul>
<ul style="list-style-type: none"> <li>Pengupasan lapisan permukaan tanah.</li> <li>Penggalian material tanah dan material tambang.</li> <li>Stripping the top soil.</li> <li>Removal of top soil and mining materials</li> </ul>	<ul style="list-style-type: none"> <li>Hilangnya lapisan humus tanah.</li> <li>Perubahan rona alam akibat lubang tambang berukuran besar.</li> <li>Penurunan kualitas air permukaan.</li> <li>Erosi permukaan tanah.</li> <li>Loss of soil humus layer.</li> <li>Changes in natural landscape due to large mine pits.</li> <li>Decreasing the quality of surface water.</li> <li>Soil erosion.</li> </ul>	<ul style="list-style-type: none"> <li>Meminimalkan luas pembukaan lahan, hanya pada lahan untuk kegiatan.</li> <li>Mengoptimalkan rencana tambang berdasarkan kriteria kestabilan lereng.</li> <li>Mengatur kontur lokasi penempatan tanah penutup untuk memastikan stabilitas lereng.</li> <li>Menyebarkan tanah pucuk di lokasi penempatan akhir tanah penutup untuk reklamasi.</li> <li>Pemindahan material tanah keruk ke tempat lain, untuk digunakan kembali sebagai material timbun pascatambang.</li> <li>Penimbunan lubang tambang pada lahan pascatambang menggunakan material tanah keruk, untuk menghindari resuspensi.</li> <li>Membangun dan mengoperasikan kolam-kolam sedimentasi di daerah tambang, baik yang masih aktif maupun tidak aktif.</li> <li>Melindungi lokasi penimbunan tanah pucuk dengan pembuatan guludan dan penanaman tanaman penutup tanah.</li> <li>Penanaman kembali pada lahan pascatambang, disertai perawatan.</li> <li>Minimizing the extent of land clearing, to land for activities.</li> <li>Optimizing mining plans based on slope stability criteria.</li> <li>Adjusting the contours of land cover to ensure slope stability.</li> <li>Spreading topsoil at the final overburden site for reclamation.</li> <li>Transferring dredged soil material to another location, to be reused as post-mining material.</li> <li>Stockpiling mine pits on post-mining land using dredged soil material to avoid resuspension.</li> <li>Constructing and operating sedimentation ponds in the active and inactive mining areas.</li> <li>Protecting topsoil landfill sites by creating mounds and planting cover crops.</li> <li>Replanting on post-mining land, together with maintenance.</li> </ul>
<b>Pengangkutan material tanah dan material tambang</b> Transportation of soil material and mining material	<b>Penurunan kualitas udara.</b> Decreasing air quality	<ul style="list-style-type: none"> <li>Penyiraman jalan tambang secara berkala.</li> <li>Penanaman pohon untuk mengurangi debu ke permukiman warga.</li> <li>Regular watering of mine roads.</li> <li>Planting trees to reduce dust to residents' homes.</li> </ul>





## Pembatasan Luasan Operasi Pertambangan

PT Vale memiliki kebijakan membatasi luasan area pertambangan. Sesuai dokumen laporan jaminan reklamasi periode 2018–2022 yang disetujui Kementerian ESDM, luasan sisa lahan terbuka dibatasi maksimal 2.352,84 hektar di tahun 2019.

Luas lahan yang dibuka untuk operasi pertambangan pada tahun 2019 adalah 286,56 hektar, dengan luasan kumulatif lahan untuk operasi pertambangan hingga akhir tahun 2019 mencapai 6.287,70 hektar. Adapun luasan lahan tambang yang direklamasi pada tahun 2019 mencapai 81,09 hektar atau 108,12% dari target 75 hektar, sehingga luasan kumulatif lahan reklamasi pascatambang yang telah dilaksanakan hingga 31 Desember 2019 mencapai 4.249,45 hektar. Dengan demikian total luasan sisa lahan terbuka untuk pertambangan pada tahun 2019 adalah 2.013,27 hektar, sehingga memenuhi batasan yang ditetapkan. [304-3]

### Luasan Lahan Terganggu dan Direhabilitasi (ha)

Area of Disturbed and Rehabilitated Land (ha) [304-3, MM1]

Tahun Year	Total Luas Area Terganggu Pada Awal Tahun yang Belum Direhabilitasi Total Area of Unrehabilitated Disturbed Land at the Beginning of Year	Jumlah Luas Area Terganggu pada Tahun Ini Total Area of Disturbed Land This Year	Jumlah Lahan yang Direhabilitasi Tahun Ini Total Area of Rehabilitated Land This Year	Total Luas Area Terganggu Pada Akhir Tahun yang Belum Direhabilitasi Total Area of Unrehabilitated Disturbed Land at End of Year
	(1)	(2)	(3)	1+2-3
2019	1,807.8	286.56	81.09	2,013.27
2018	1,565.70	197.54	93.31	1,669.93
2017	1,425.90	286.16	57.54	1,654.52

## Kepemilikan Lahan di Wilayah Operasi [304-1]

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

## Mining Operation Extension Limitations

PT Vale has a policy to limit the extent of the mining areas. In the 2018-2022 reclamation guarantee report document, approved by the Ministry of Energy and Mineral Resources, the remaining open land areas are limited to a maximum of 2,352.84 hectares in 2019.

The area of land cleared for mining operations in 2019 was 286.56 hectares, resulting in a cumulative land area at the end of 2019 of 6,287.70 hectares. The reclaimed post-mining land in 2019 was 81.09 hectares or 108.12% of the target of 75 hectares, resulting in a cumulative rehabilitated post-mining land as of December 31, 2019 of 4,249.45 hectares. The total area of remaining open land for mining in 2019 was 2,013.27 hectares, within the specified limits. [304-3]

## Land Ownership in Operating Areas [304-1]

PT Vale's mining operation areas are self-owned, based on the Contract of Work with the Government of Indonesia, as amended in 2014. A portion of the operating 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 License-to-Use Forest Area Permit (IPPKH) from the Ministry of Environment and Forestry (KLHK) through SK No. 645/MenLHK/SetJen/PLA.0/12/2018 concerning Borrow-to-use Forest Areas Permits.

PT Vale juga telah mendapatkan IPPKH untuk kegiatan operasi produksi Bahodopi blok I seluas 2.143,14 Ha sesuai SK Menteri LHK No. SK.341/Menlhk/Setjen/PLA.0/5/2019 serta perpanjangan ke-2 IPPKH untuk kegiatan eksplorasi Bahodopi seluas 12.820,60 Ha sesuai dengan SK Menteri LHK No. SK.522/Menlhk/Setjen/PLA.0/11/2018.

Untuk aktivitas di blok Pomalaa, PT Vale juga telah mendapatkan IPPKH untuk kegiatan eksplorasi seluas 12.563,10 Ha sesuai dengan Keputusan Kepala Badan Koordinasi Penanaman Modal No. 6/1/IPPKH/PMA/2018.

## Menjaga dan Merawat Keanekaragaman Hayati

Di sekitar wilayah pertambangan PT Vale terdapat jenis flora dan fauna yang dilindungi. Oleh karenanya PT Vale berkomitmen untuk menjalankan rencana manajemen keanekaragaman hayati yang mencakup seluruh (100%) wilayah operasi pertambangan di Blok Sorowako. Hingga akhir periode pelaporan, pengelolaan telah terlaksana 83,33%. Dari hasil identifikasi 2017, PT Vale terus menjaga spesies fauna yang berada di dekat area operasi berdasarkan IUCN, yaitu Anoa gunung (*Bubalus quarlesi*), anoa dataran rendah (*Bubalus depressicornis*) [Endangered], rusa (*Cervus timorensis*), kuskus beruang (*Ailurops ursinus*), kuskus Sulawesi (*Strigocuscus celebensis*), musang Sulawesi (*Macrogalidia musschenbroekii*) [Vulnerable], babi hutan Sulawesi (*Sus celebensis*), burung pecuk ular (*Anhinga melanogaster*), burung elang ikan kecil (*Ichthyophaga humilis*), burung udang merah Sulawesi (*Ceyx fallax*) dan burung raja udang pipi ungu (*Cittura cyanotis*) [Near Threatened]. [304-4], [MM2]

Perseroan juga telah memiliki "Dokumen Panduan Konservasi Ekosistem dan Lingkungan di Indonesia bagi Dunia Usaha di Sektor Tambang" yang diluncurkan tahun 2018. Dokumen ini akan digunakan untuk kebutuhan pelestarian keanekaragaman hayati dan program keberlanjutan Perseroan.

Selama periode pelaporan, PT Vale melanjutkan reklamasi lahan pascatambang. Pelaksanaan reklamasi dilakukan dengan melibatkan pihak ketiga, sementara kebutuhan tanaman untuk kegiatan penanaman diperoleh dari fasilitas pembibitan pohon (*nursery*) milik Perseroan dengan kapasitas produksi 700.000 bibit per tahun. Hingga akhir tahun 2019, PT Vale memastikan seluruh tanaman pada lahan yang telah direklamasi dalam kondisi tumbuh baik.

PT Vale has also obtained an IPPKH for Block I Bahodopi production operations covering an area of 2,143.14 Ha, based on Minister of LHK Decree No. SK.341/Menlhk/Setjen/PLA.0/5/2019 as well as a 2nd extension to the IPPKH for Bahodopi exploration activities covering an area of 12,820.60 Ha, based on Minister of LHK Decree No. SK.522/Menlhk/Secretary-General/PLA.0/11/2018.

For activities in the Pomalaa block, PT Vale has also obtained an IPPKH for exploration activities covering an area of 12,563.10 Ha based on Head of the Investment Coordinating Board Decree No. 6/1/IPPKH/PMA/2018.

## Maintaining and Caring for Biodiversity

Around the PT Vale mining areas there are protected flora and fauna. Consequently, PT Vale's commitment to safeguard and care for biodiversity is included in its biodiversity management plan, covering all (100%) mining operations in the Sorowako Block. Up to the end of the reporting period 83.33% of the plan had been implemented. From the 2017 identification results, PT Vale continues to protect fauna species near the IUCN-based operating areas, including the mountain anoa (*Bubalus quarlesi*), lowland anoa (*Bubalus depressicornis*) [Endangered], timor deer (*Cervus timorensis*), bear cuscus (*Ailurops ursinus*), Sulawesi cuscus (*Strigocuscus celebensis*), Sulawesi palm civet (*Macrogalidia musschenbroekii*) [Vulnerable], Sulawesi warty pig (*Sus celebensis*), oriental darter (*Anhinga melanogaster*), lesser fish eagle (*Ichthyophaga humilis*), Sulawesi Dwarf-kingfisher (*Ceyx fallax*), and the lilac kingfisher (*Cittura cyanotis*) [Near Threatened]. [304-4], [MM2]

The Company has an "Ecosystem and Environmental Conservation Guidance Document for the Mining Sector Businesses in Indonesia" that was published in 2018. This document is used for biodiversity conservation needs and the Company's sustainability program.

During the reporting period, PT Vale continued reclamation of post-mining land, using third parties, while for planting activities the Company has nursery facilities with a production capacity of 700,000 seedlings per year. At the end of 2019, PT Vale has ensured that all plants on reclaimed land remain in good condition.





Pelaksanaan reklamasi pascatambang dilaporkan berkala kepada kepada pihak-pihak berwenang. Reklamasi pascatambang dilakukan dengan memperhatikan ketentuan dalam UU No.4 Tahun 2009 Tentang Penambangan Mineral dan Batubara. Sesuai ketentuan tersebut, kegiatan pascatambang dilakukan secara terencana, sistematis dan berkelanjutan untuk memulihkan fungsi lingkungan alam dan fungsi sosial setempat.

Pelaksanaan penutupan tambang dilakukan dengan memperhatikan prinsip-prinsip:

- Perlindungan terhadap kualitas air permukaan, air tanah, air laut, dan tanah serta udara sesuai dengan standar baku mutu lingkungan yang relevan.
- Perlindungan keanekaragaman hayati.
- Stabilitas keamanan timbunan overburden, kolam tailing, lahan bekas tambang serta struktur buatan lainnya.
- Pemanfaatan lahan bekas tambang sesuai peruntukannya.
- Menghormati nilai-nilai sosial dan budaya setempat.

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 wilayah Sorowako, dan menyertakan jaminan terhadap penutupan tambang. [MM10]

The post-mining reclamation activities pay due regard to the provisions in 2009 Law No.4 concerning Mineral and Coal Mining, and are reported periodically to the authorities. Following these provisions, post-mining activities are carried out in a planned, systematic and sustainable manner to restore the natural environment and local social functions.

Mine closures are carried out with due regard to the following principles:

- Protecting the quality of surface water, groundwater, seawater, and soil and air in accordance with relevant environmental quality standards.
- Protecting the biodiversity.
- Stabilizing the overburden dumps, tailings ponds, mined land, and other artificial structures.
- Utilizing ex-mining land as designated.
- Respecting local social and cultural values.

PT Vale has also embodied its commitment to land rehabilitation and reclamation by allocating 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) in the Sorowako region and includes guarantees for mine closures. [MM10]





# Taman Raya Wallace Sawerigading

Taman Raya Wallace Sawerigading

PT Vale melanjutkan pembangunan Taman Raya Wallace Sawerigading (TRWS), dengan luas lahan direncanakan mencapai 110 hektar. Pelaksanaan pembangunan TRWS melibatkan masyarakat serta akademisi/peneliti dari LIPI, Universitas Hassanudin dan Insitut Teknologi Bandung.

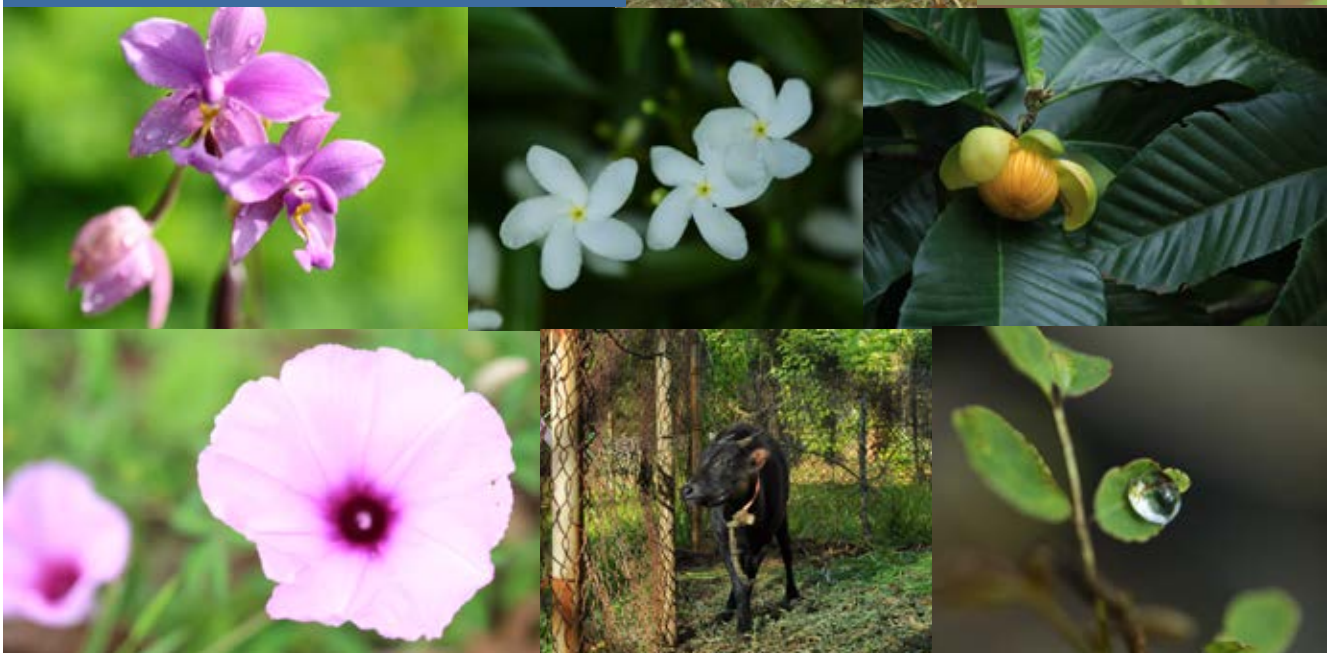
Pemilihan nama TRWS didasari pada dua tokoh yang berkaitan dengan Sulawesi dan wilayah Luwu, yakni Alfred Russel Wallace dan Sawerigading. Pemilihan nama TRWS dimaksudkan sebagai penghormatan kepada kedua tokoh tersebut, sekaligus melestarikan kearifan lokal bumi Sawerigading.

PT Vale has continued its construction of the Wallacea Sawerigading Park (TRWS), over a planned land area of 110 hectares. The TRWS construction involved the communities as well as academics/researchers from LIPI, Universitas Hassanudin and Insitut Teknologi Bandung.

The name TRWS is based on two figures related to Sulawesi and the Luwu region, namely Alfred Russel Wallace and Sawerigading. The choice of TRWS is intended as a tribute to both figures while preserving the local wisdom of Sawerigading.



110 hektar  
hectare







# Independent Assurance Statement



AA1000  
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000-174

Vers. 2020, pg. 1 of 4

## Independent Assurance Statement The 2019 Sustainability Report of PT Vale Indonesia Tbk

Number : 006/000-174/IV/2020/SR-Asia/Indonesia  
Type / Level : 1 / Moderate

This **Independent Assurance Statement** (“the Statement”) presents the conclusions and recommendations on the **2019 Sustainability Report** (“the Report”) of **PT Vale Indonesia Tbk** (“the Company” or “the Reporting Organization”). The Statement has been issued by Social Responsibility Asia (“SR Asia”) based on the assurance work as per agreement with the Management<sup>1</sup>. SR Asia is responsible for evaluating the Report content and generating recommendations as well as the Statement, while the Management has the exclusive responsibility on the Report content including presentation of claims, data, information, and figures.

SR Asia’s responsibility is to present the results of assurance work and the Statement only to the Management. It is strongly NOT advised for anyone to interpret the sustainability or overall performance of the Company based on the Report content or the Statement, except for the areas covered in the scope of assurance work. SR Asia also does NOT accept or assume any responsibility for any other purpose or to any other person or organization. Therefore, a person or an institution shall accept its own risks from dependency on the Report.

The Reporting Organization is a nickel-mining company operating in Sulawesi, Indonesia, and listed in the Indonesia Stock Exchange (IDX). The Company has drafted the Report by referring to:

- (a) the Sustainability Reporting Standards of the Global Reporting Initiative (GRI Standards) and its Mining and Metals Sector Supplement (MMSS), and
- (b) the Regulation of Indonesia Financial Services Authority No.51/POJK.03/2017 on the Implementation of Sustainable Finance for the Financial Services Organisations and the Listed and Public Companies (POJK 51)

### Scope and Limitation

1. **Type 1 and Moderate Level** of assurance is applied; where **the risks of information and conclusions of the Report being error is reduced, but not reduced to very low, but not zero.**
2. Review, NOT to investigate or audit, the Report content for the reporting period of **1<sup>st</sup> of January up to 31<sup>st</sup> of December 2019**, especially on the following material topics. They are **economic performance, occupational health and safety, environmental compliance, mine closure, and local community.**
3. Financial data, information, and figures in the Report content are NOT included in the scope of assurance. SR Asia presumes the Company, or independent parties, or other parties associated to the Company, have verified and/or audited any data and information related to financial statements.

<sup>1</sup> “The Management” refers to the management of the Reporting Organization or the Company



4. Evaluation on publicly disclosed information, system and process of the Company to ensure adherence to the principles.

## Exclusion

1. Financial performance data and information as presented in the Company's financial statements and documents, other than those mentioned in the Report content.
2. Topics, data and information outside the reporting period, or in the public domain not covered in the reporting period, or other than those mentioned under the defining materiality section and discussion on defining Report content.
3. Opinion, belief, expectation, advertisement, future plan, and presumption of the Company as presented in the Report content.
4. Analysis on indicators, standards or principles other than those mentioned in the Statement.
5. Stakeholders' engagement process and activities that might be taken in developing the Report.

## Methodology

SR Asia has engaged an official partner in Indonesia and formed an Assurance Team to:

1. Carry out a kick-off meeting and perform an initial assessment on the Report document.
2. Visit the head office of the Company and meet the Management through videoconference to discuss the Report content and review the results of initial assessment.
3. Receive the evidence documents and trace down data, information and disclosures as presented in the Report content to the evidences.
4. By utilizing SR Asia GREAT, analyze the Report content against the standards, principles, and indicators of AA1000AP (2018) AccountAbility, GRI Standards and its MMSS, and POJK 51.

## Adherence to AA1000AP (2018) AccountAbility and GRI Standards

**Inclusivity** – Presentation of the Company's key stakeholders in the Report content is adequately inclusive. In terms of stakeholder engagement, various functions or units of the Company have been involved in the engagement activities. The Company also has adequate competencies and resources to engage with stakeholders and view potential sustainability risks and opportunities. As the Company has not yet performed materiality assessment, stakeholder engagement is more in practical rather than in strategic way.

**Materiality** – Material topics in the Report content represent issues from a wide range of sources and can fairly describe sustainability context of the Company. Nevertheless, the process of materiality determination needs improvement in future reporting due to the absence of materiality testing. There should be more credible, clear and understandable criteria and threshold utilized in materiality testing as the basis for materiality determination.

**Responsiveness** – The Report content specifies the Company's responsiveness to the material topics and stakeholders' concerns. A wide range of engagement approaches and methods has been utilized for developing responses and communicating with stakeholders. The Company also has particular measures to respond grievances, especially from the community. As per assurance work, the Assurance Team has



concluded that the disclosure on community grievances data and information should be enhanced in the future in order to increase its adherence level to responsiveness principle.

**Impact** – In general, the Report content presents qualitative data and narrative information about the impacts of the Company's decisions and operations on the stakeholders and the environment. As part of the impact assessment mechanism, the Company measured community satisfaction index (CSI) in 2019. Nonetheless, the Company is expected to disclose number of community grievances in future reporting in order to provide clearer picture about the impacts on the community.

**In "Accordance" with Core Option** – The Report content indicates its adherence to the **core option** of GRI Standards, where minimum one indicator of each material topic is presented and discussed in the Report content. The Report has moderate presentation of the disclosure of management approach (DMA) and the specific disclosures of material topics. When applicable, the Company has specified the omission statements in the Report.

**GRI Standards Principles** – The Report content indicates that the Principles for Defining Report Content (stakeholder inclusiveness, sustainability context, materiality, and completeness) and the Principles for Defining Report Quality (balance, comparability, accuracy, timeliness, clarity, and reliability) are fairly in place. Evidence documents were also presented to the Assurance Team during the assurance work. The Company is advised to conduct materiality assessment to strengthening its adherence to materiality principle. In addition, improvement should be also carried out on community grievances topic in the future in order to make the next reporting more complete.

## Adherence to POJK 51

Following the requirement of the Financial Service Authority, the Report content to some extent shows its adherence to POJK 51. As POJK 51 was developed in accordance with sustainable finance framework, the Report content omits some indicators in POJK 51 that are not closely related to sustainability context of the Company. Some of which are sustainable finance products and services, as well as sustainable finance portfolio.

## Recommendation

1. Materiality testing should be conducted to improve the adherence to materiality principle and to increase information reliability of material topics and key stakeholder groups in the future reporting. It should be carried out strategically in line with stakeholder engagement practices based on AA1000 SES (2015) and also integrated in the company's key management practices.
2. Disclosures on management approach as well as sustainability performance data and information should be enhanced. That should include goals, targets, and outputs, which should be defined at local level in line with those of global corporate level. Some of which are emission and energy reduction as well as community grievance mechanism.





## Statement of Competency, Independency and Impartiality

SR Asia is a networking organization whose members are the organizations and professionals with expertise and experience in sustainability and social responsibility. SR Asia operates in Asian countries where the activities are conducted in accordance with each country's characteristics and needs. Some of SR Asia's services are community development project management, social mapping, project impact assessment, sustainability policy and strategy development, company productivity development, and sustainability or integrated report assurance.

In performing assurance work, SR Asia assigns the experts with competencies in writing and reviewing sustainability or integrated report. The experts are also familiar with AA1000 AccountAbility standards and principles as well as the reporting regulation in the Country where the Company operates. They must be independent and following SR Asia's assurance mechanism, procedures and professional codes of practices. Therefore, SR Asia believes that the Assurance Team is able to avoid bias and to ensure impartiality in generating the Statement.

The assurance provider,

Jakarta, 15<sup>th</sup> of April 2020

  
**Birendra Raturi**

*SR Asia International Director*



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## Referensi POJK dan Standar Isi Indeks GRI

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# Lembar Umpan Balik

## Feedback Form



Laporan Keberlanjutan 2019 PT Vale Indonesia Tbk telah memberikan gambaran kinerja keberlanjutan perusahaan. Kami mengharapkan masukan dari Bapak/Ibu/Saudara atas Laporan Keberlanjutan ini melalui e-mail atau formulir ini.

PT Vale Indonesia Tbk Sustainability Report 2019 provides an overview of our sustainability performance. We look forward to receiving any input from you regarding this Sustainability Report by sending an email, or completing this form.

- 1 **Laporan ini mudah dimengerti.**  
This report is easy to understand.  
 Tidak Setuju Disagree     Netral Neutral     Setuju Agree
- 2 **Laporan ini sudah menggambarkan informasi positif dan negatif Perusahaan.**  
The report has described positive and negative information of the Company.  
 Tidak Setuju Disagree     Netral Neutral     Setuju Agree

3 **Topik material apa yang paling penting bagi anda:**  
(nilai 1= paling penting s/d 4 = paling tidak penting)

Material topic(s) which is(are) the most important to you:  
(score 1=most important up to 4 = Least important)

- **Kesehatan dan Keselamatan Kerja (K3)** Occupational Health and Safety [   ]
- **Kinerja Ekonomi** Economic Performance [   ]
- **Komunitas Lokal** Local Community [   ]
- **Rehabilitasi Pascatambang** Post-mining Rehabilitation [   ]
- **Kepatuhan Lingkungan** Environmental Compliance [   ]

4 **Mohon berikan saran/usul/komentar anda atas laporan ini.**

Kindly provide your inputs/suggestions/comments about this report

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.....

### Profil Anda Your Profile

Nama Lengkap Full Name : .....

Pekerjaan Occupation : .....

Nama Lembaga/Perusahaan Institution/Company's Name :

.....

Golongan Pemangku Kepentingan Stakeholders Group:

- Pemerintah Government     Masyarakat Community  
 Perusahaan Corporate     Karyawan Employee     LSM NGO  
 Lainnya, mohon sebutkan ... Others, please state ...
- .....



Terima kasih atas masukan Anda. Mohon lembar umpan balik dapat dikirim melalui surat elektronik kepada kontak yang tertera pada laporan ini, atau langsung ke:

Thank you for your feedback. Please send this feedback form to the contact listed in this this report or directly to:

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2019  
Laporan Keberlanjutan  
Sustainability Report

