



Creating shared value through partnership





## About this report

### Defining report content

This sustainability report has been prepared for the purpose of communicating our key sustainability issues, how we address those, and our performance in 2015. The report content is based on the corporation's business activities, the interests of the stakeholders, and material aspects that have a large influence on the issues of the economy, environment, and society. A summary of company performance has been provided in the Annual Report 2015.

The sustainability report was prepared based on the GRI Guidelines, version G4 – Core option. We also made reference to the GRI sector supplement for the Mining and Minerals sector. The report also reflects the application of and alignment with recognized international policies, standards and management practices, including the principles set out by the International Council on Mining and Metals (ICMM) Sustainable Development Framework, the United Nations Global Compact (UNGC), World Bank's guidelines on involuntary resettlement, environmental and social impact assessment (ESIA) and other policies as well as standards and practices for sustainable society and environment set out by International Finance Corporation (IFC).

### Scope and boundaries

The main business of the Masan Resources Corporation is the operation of the Nui Phao mine and is limited to Vietnam, specifically Dai Tu District, Thai Nguyen Province. The operation of the Ammonium Paratungstate (APT) processing plant, which has been managed independently by the joint venture with H.C. Starck, was not included in the 2015 report.

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DOMINIC JOHN HEATON  
Chief Executive Officer of Masan Resources

## MESSAGE FROM CEO

Dear stakeholders,

Masan Resources and Nui Phao Mining made 2015 a strong year by establishing numerous milestones in the successful development of the polymetallic mine towards a safer, stronger, and more sustainable world-class resources business. Thanks to the strategic investment from the shareholders and partners, Masan became the world's largest producing tungsten miner and producer, accounting for around 30 percent of the world's total supply of tungsten. This has been achieved against the global context of a very challenging year for the mining industry. In particular, the continued downturn in commodity prices has resulted in many companies struggling to deliver on their obligations and commitments.

As our operation matures, our stakeholders are progressively becoming more interested in how we address sustainability issues and create shared value. One of the biggest challenges of the mining industry is reconciling the different, and often conflicting, concerns of key stakeholders about business orientation and managing the impact of the operation. The key lies in building a constructive dialogue to understand our stakeholders' concerns and forge effective partnerships based on mutual understanding. Since our mining operation involves acquiring land, it profoundly affects our host community, their livelihoods and their environment. We strive to understand our impact and constantly weigh this against any business decisions we make.

Engaging with affected groups and the three layers of government is key in ensuring that we minimise our impact and adapt our production strategies. We will be a long-time partner with the community in the Dai Tu district, where the current mine lifetime and outlook is around 20 years. We have regular meetings with all levels of authorities, the affected communes (administrative divisions) and individual stakeholders to understand and address their concerns. By engaging with local communities and government on their terms and building constructive dialogues, we have achieved relocation in a reasonable timeframe for more than 98% of the land acquired to date. And to minimise community loss of livelihoods, around 56% of our employees are recruited from the local Dai Tu district. Furthermore, an increased number of affected people were employed by our local enterprises in 2015 – a demonstration of successful partnership with the community and the benefits it brings.

Our sustainable development progress relies strongly on our safety performance, as it directly impacts the efficiency of our operation. As we believe safety is a journey, we need to constantly work at it and bring our workforce along with us. We continuously educate our employees and contractors on stringent safety codes and conduct regular training programmes. We are immensely proud of our team for achieving an impeccable safety record of more than 13 million man hours Lost-Time-Injury (LTI) free, with up to 3,200 people working on site at different times.

There were other important activities during 2015 that saw us receive important visitors (including President Truong Tan Sang) and international delegations (120

International Tungsten Industry Association (ITIA) members). We received respected national awards for our environment and sustainability activities (a Green Growth Award from the Ministry of Natural Resources and Environment (MoNRE), an Enterprise Certificate for Corporate Social Responsibility (CSR) from the Ministry of Planning and Investment (MPI)). We are proud to be recognised for our holistic approach to managing our economic, environmental and social impact.

Our longstanding commitment and key focus is to develop effective and mutually beneficial partnerships with all of our stakeholders. We believe in being responsible for our environmental and social impacts, and only through establishing open dialogues can we enhance our transparency and accountability. This year's sustainability report is one formal channel through which we communicate and demonstrate our commitment to achieving stakeholder inclusiveness.

The sustainability report is an official channel which we communicate and demonstrate our commitment on core values, mutual benefits and ensure an efficient inclusiveness with stakeholders. This year's report details our approach to achieving stakeholder inclusiveness and operating a socially responsible business that ultimately maximises the benefits locally. We have prepared the report in accordance with the Global Reporting Initiative (GRI) G4 Guidelines to provide comparability to future progress. We welcome any feedback and encourage readers to make contact with us if they wish to discuss any aspect of the report.

Yours faithfully,

DOMINIC JOHN HEATON  
Chief Executive Officer



2015 HIGHLIGHTS

**5,123** tons of  
Tungsten concentrate  
(contained)

**10,250** tons of  
Tungsten equivalent units  
(contained)

**3,163** billion VND  
net cash sales

**1,095** permanent  
employee in total

**6.26** billion VND  
in community investment

**over 13** million  
hours LTI free

GLOBAL RECOGNITION

After achieving steady state of operations in the third quarter of 2014, 2015 has been a strong year for Masan Resources and Nui Phao, marked by the following significant achievements and awards;

- Success of hosting the International Tungsten Industry Association (ITIA) annual conference in Hanoi and the appointment of the CEO of Masan Resources to the ITIA Executive Committee.
- Working with customers and research institutes to develop increasingly higher quality products, while participating in industry forums to insure best practices.

- The 2015 listing of Masan Resources on the Hanoi Stock Exchange's UPCoM platform makes the Company one of the largest listed companies on the northern bourse, significantly enhancing its profile and relationships with global customers and partners.
- Implementing brand-related initiatives to strengthen our recognition as one of the largest tungsten suppliers in the world and our long-term commitment to providing consistent high quality products to our customers.

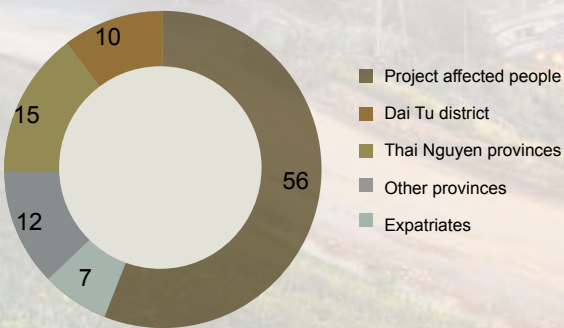


Hosting the 28th International Tungsten Association (ITIA) in Vietnam ITIA from September 22 to 24 in Ha Noi

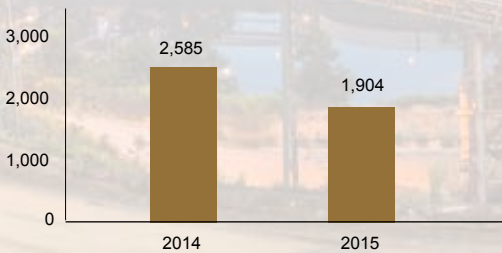


IPO Road Show was launched on July 21 in Hanoi and on July 22, 2015 in Ho Chi Minh, listing Masan Resources on the UPCoM platform of the Hanoi Stock Exchange

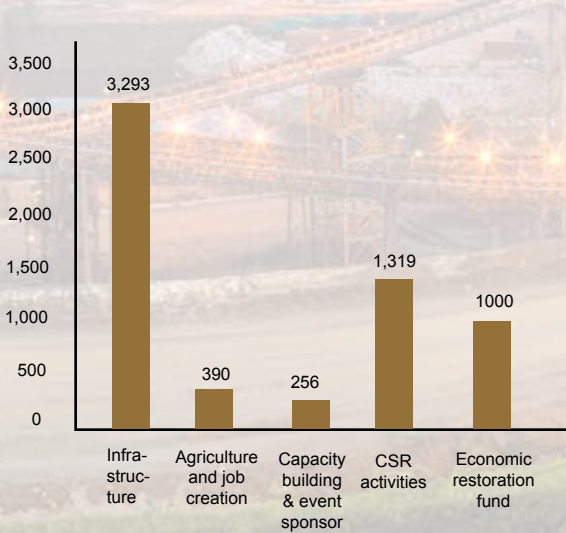
Labourate by geography (%)



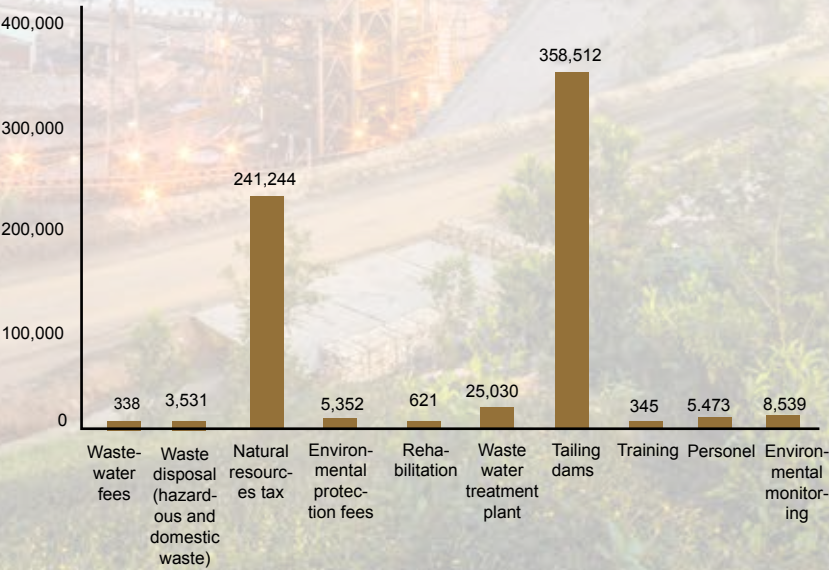
Capital expenditure (billion VND)



CDP expenditure in areas of support 2015 (million VND)



Enviromental expenditures (million VND)





AWARDS & RECOGNITION 2015

Recognized as a showcase model for the mining industry in Vietnam, we have also received various recognitions and awards for our overall performance as a company, our dynamic workplace culture, contributions to the community and patient advocacy. Below we list some of our most recent achievements.

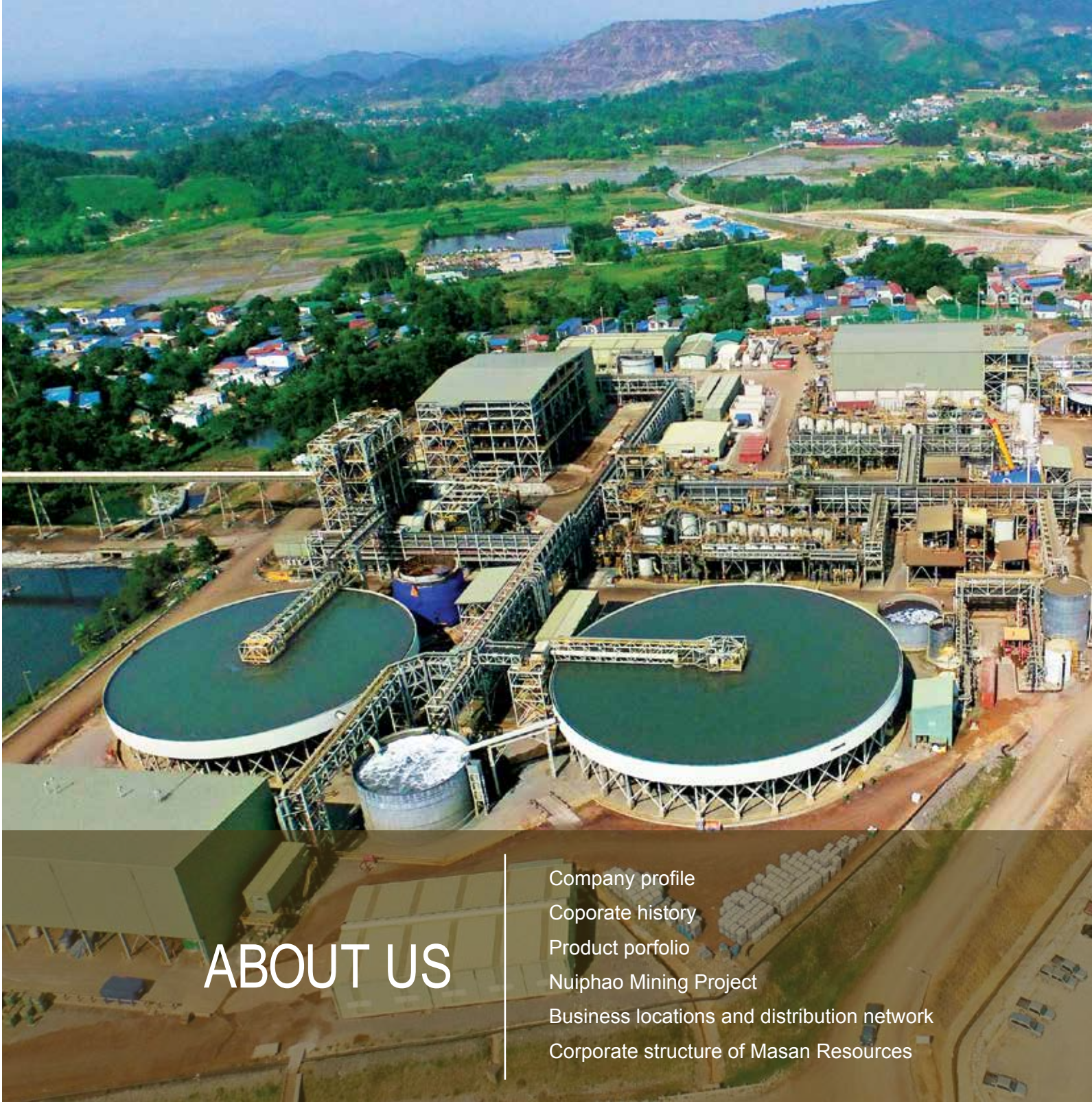
Title	Awarded by
Certificate of Top 100 Best Brands of Vietnam Golden Star Award 2015	Youth Enterprise Association of Vietnam
Certificate of Enterprise with significant contribution in technology innovation towards green economy in 2015	Ministry of Natural Resources and Environment
Certificate of Enterprise with good performance in CSR activities (in 2013 and 2015)	Ministry of Planning and Investment
Merit for Enterprise with good compliance in tax contribution (3 consecutive years 2012, 2013 and 2014)	Tax Bureau of Vietnam
Medal for outstanding entrepreneur (awarded to Mr Vu Hong) for contribution to the social economic development	Vietnam Chamber of Commerce and Industry -VCCI
Merit for Excellent Enterprise of Thai Nguyen province (4 consecutive years 2012, 2013, 2014 and 2015)	Thai Nguyen Provincial People's Committee; Thai Nguyen Provincial Labor Union
Merit for Enterprise with outstanding achievements in the emulation and commendation of Thai Nguyen province (in 2014 and 2015)	Thai Nguyen Provincial People's Committee
Merit for sponsoring the Thai Nguyen third Tea Festival (two times in 2013 and 2015)	Thai Nguyen Provincial People's Committee
Merit for Enterprise with outstanding achievements in the implementation of the movement of the modern rural development period 2011-2015	Thai Nguyen Provincial People's Committee
Merit for Enterprise with outstanding achievements in the implementation of the Project 2037 "Developing social economic and sustainable livelihood for people in disadvantaged rural hamlets with dominant H'mong ethnic minority population"	Thai Nguyen Provincial People's Committee



MSR/NPM representative receives the medal for Top 100 outstanding of Vietnam Gold Star Award



MSR/NPM representative receives the medal for Enterprise with good implementation in CSR activities



ABOUT US

- Company profile
- Coporate history
- Product porfolio
- Nuiphao Mining Project
- Business locations and distribution network
- Corporate structure of Masan Resources

Masan Resources is the largest producer of primary and mid-stream tungsten products outside of China. Its flagship asset, Nui Phao polymetallic mine, located in Thai Nguyen province in Northern Vietnam, is the first tungsten mine successfully developed into production in the last 15 years. Nui Phao has been identified by leading industry analysts, including Roskill and Argus Media Ltd., as one of the world's largest tungsten mines, with a JORC compliant proven and probable ore reserves of 66 million tonnes (Government license is for 83,220,000 tonnes of tungsten-polymetallic ore of grade B and C1 including: (i) open pit mining: 55,192,000 tonnes and (ii) underground mining 28,028,000 tonnes). Masan Resources, with its experienced management team, local access, strong execution capabilities, international partners and capital raising abilities, has developed the right platform to grow into a leading global resources company.



COMPANY PROFILE

MASAN RESOURCES CORPORATION

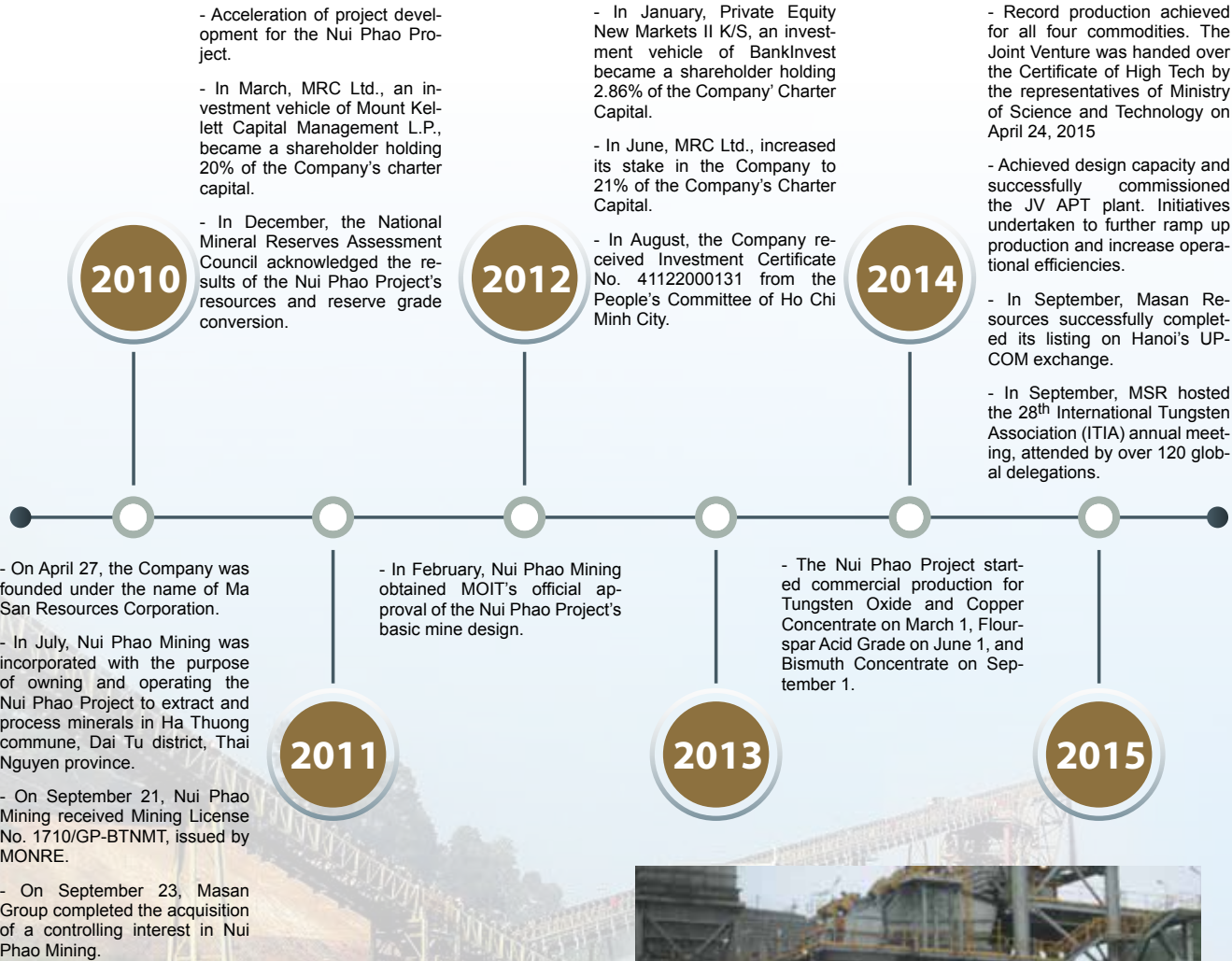
Name of the Company	Công ty Cổ phần Tài nguyên Ma San
English name	Ma San Resources Corporation
Abbreviated name	Masan Resources
Head office	Suite 802, 8 <sup>th</sup> Floor, Central Plaza, 17 Le Duan, Ben Nghe Ward, District 1, Ho Chi Minh City, Vietnam
Telephone	+84 8 6256 3862
Fax	+84 8 3827 4115
Website	masangroup.com/masanresources
Enterprise Registration Certificate	No. 0309966889 issued by the Department of Planning and Investment of Ho Chi Minh City on April 27, 2010, as amended for the 12 <sup>th</sup> time on February 4, 2015
Charter Capital	VND7,194,473,280,000



CORPORATE HISTORY

MASAN RESOURCES CORPORATION

The Company was established on April 27, 2010 with the view to undertake mining and resources activities of the Masan Group. Significant events in the Company's business are set out below:





PRODUCT PORTFOLIO

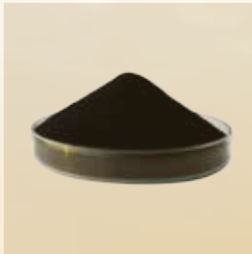
Tungsten, fluorspar, copper and bismuth at the Nui Phao mine are strategic metals that are important for many industries in the world today.

Tungsten (WO<sub>3</sub>)



Tungsten is an extremely hard metal with the highest melting point of all metals and almost as heavy as gold. It is over three times harder than chromium, cobalt and titanium and over five times harder than nickel, iron and platinum. Tungsten alloys weld well with other metals and it has the highest melting temperature of all metals and displays high resistance to corrosion.

Tungsten is mainly used in the production of cemented carbides or hard-metals, which due to their wear-resistant properties are used in the metal working, mining, petroleum and the construction industries. It is virtually non-substitutable for a variety of industrial applications such as the production of high-performance machine tools and steel alloys, which are subsequently used in the automotive, energy, construction and aerospace industries. The steel industry sector is a primary consumer of tungsten for use in stainless and full alloy steels, and super-alloys. Tungsten is also used in various military, aviation and power generation applications.



Fluorspar (CaF<sub>2</sub>)



Fluorspar is mainly used for the production of hydrofluoric acid (HF) which is subsequently consumed in the aluminum and steel industry. Fluorspar is produced in 2 classes:

- Acidspar containing at least 97% calcium fluoride (CaF<sub>2</sub>), is used to produce hydrofluoric acid (HF), which is needed in the production of aluminum and semiconductor devices. HF is also used for production of specialized gases for air-conditioners and refrigerators.
- Metspar, which contains at least 60% CaF<sub>2</sub> and is mainly used for quality enhancement in steel production.

Total global fluorspar production in 2015 was estimated at 6.25 million tons, of which China produced more than 60%.

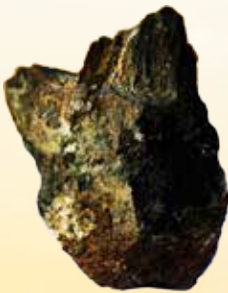
Bismuth (Bi)



Bismuth is the heaviest natural non-radioactive element. It is a base metal, with earth reserves similar to the reserves of silver. It almost never appears in pure form. Bismuth has found use in many industrial applications and consumer products. Recently, bismuth is being used to gradually replace lead in many applications.

China is the largest producer of bismuth as over 50% - of its production is in the form of a by-product of tungsten production. Looking into the future, the demand for bismuth is forecasted to increase. According to the Market Report on tungsten, fluorspar, bismuth and copper prepared by Somerley Limited, global demand for bismuth is estimated to grow at 4-5% p.a.

Copper (Cu)



Copper is an essential metal for all industries globally. Cables and wires account for approximately 75% of the global demand for copper. Copper is also important in non-electrical applications like welding, roofing, and, when combined with zinc, to produce brass for industrial and consumer applications.

Globally, construction activity accounts for 40% of the demand for copper. Demand for copper is estimated to continue to rise, driven by global economic growth, especially in developing countries.





NUI PHAO PROJECT

Nui Phao polymetallic mine is the flagship asset of Masan Resources, located in Thai Nguyen province in Northern Vietnam. The Nui Phao Company was established with the view to undertake mining and resources activities of the Masan Resources, and of the Nui Phao mine in particular.

General information

Company name	:	Nui Phao Mining Company Limited
Address	:	Hamlet 2, Ha Thuong Commune, Dai Tu District, Thai Nguyen Province, Vietnam
Telephone	:	+84 4 37182490
Fax	:	+84 4 37182491
Enterprise Registration Certificate	:	No. 4600864513 issued by the Department of Planning and Investment of Thai Nguyen Province on July 5, 2010, as amended for the 9 <sup>th</sup> time on October 24, 2014
Registered charter capital	:	VND4,789,010,000,000
Contributed capital in Company	:	VND4,789,010,000,000
Capital contribution ratio of the Company	:	100% of charter capital
Major business sectors	:	<div><div>- Extraction of precious metal ores (exploitation, processing of tungsten, fluorspar, copper, bismuth and gold);</div><div>- Extraction of other non-ferrous containing ores;</div><div>- Architecture and related technical consulting (geological and water resource exploration (mineral exploration));</div><div>- Assistance service activities for mining of other, not mentioned above, ores;</div><div>- Production of precious metal ores;</div><div>- Sale of the metals and metal ores (excluding sale and purchase of gold bars);</div><div>- Management consultancy;</div><div>- Other special office assistance; and</div><div>- Import and export of the products traded by the Company.</div></div>

Development history of Nui Phao

February 2004	Nui Phao Mining Joint Venture Company Ltd. (“Nuiphaovica”), a company established by the previous investors of Nui Phao Mining, was incorporated with Investment Certificate No. 2377/GP issued by the MPI to carry out the activities related to the Nui Phao Project.
February 2005	The MONRE approved the environmental impact assessment report of the Nui Phao Project.
March 2008	The MONRE approved the revised environmental impact assessment report of the Nui Phao Project.
April 2010	The Masan Group entered into definitive agreements to acquire a controlling stake in Nuiphaovica from Dragon Capital.
July 2010	<div>Nui Phao Mining was incorporated with the purpose of owning and operating the Nui Phao Project.</div> <div>Nui Phao Mining was granted Investment Certificate No. 17121000026 dated July 21, 2010 by the People’s Committee of Thai Nguyen province to execute the activities related to the Nui Phao Project. Accordingly Nui Phao Mining inherited all rights and obligations of Nuiphaovica as stated in Investment Certificate No. 2377/GP issued by the Ministry of Planning and Investment.</div>
September 2010	<div>Nui Phao Mining was granted a Mining License No. 1710/GP-BTNMT dated September 21, 2010 by the MONRE.</div> <div>Nui Phao Mining completed the transaction to acquire a controlling stake in Nui Phao Mining from the previous investors.</div>
December 2011	The National Mineral Reserves Assessment Council acknowledged the results of the report on the Nui Phao Project’s resource and reserve grade conversion.
February 2012	Nui Phao Mining obtained the MOIT’s official approval of the basic mine design of the Nui Phao Project.
July 2013	Nui Phao Mining and H.C. Starck, a leading worldwide manufacturer of technology metals, entered into a joint venture agreement to establish a Joint Venture company (the “JV”) concentrating on value-added Tungsten products in Vietnam.
January 2014	The JV received the investment certificate for its plant to produce APT, BTO and YTO.
March 2014	The Nui Phao Project started commercial production for Tungsten Oxide and Copper Concentrate.
June 2014	The Nui Phao Project started commercial production of Fluorspar Acid Grade.
September 2014	The Nui Phao Project started commercial production of Bismuth Concentrate.
2015	<div>Record production was achieved of all of Nui Phao’s commodities.</div> <div>The JV APT plant commissioned and started production ramp up.</div>



BUSINESS LOCATIONS AND DISTRIBUTION NETWORKS

The Nui Phao mine is a polymetallic mine situated within three communes (Hung Son, Ha Thuong, and Tan Linh) of Dai Tu District in Thai Nguyen Province. It is located approximately 24 km North-West from Thai Nguyen City and 3.4 km North-East from Dai Tu Town. The mine is approximately 80 km from Hanoi and is accessible via highway. Road and rail links connect the mine to the nearest ports of Hai Phong and Quang Ninh, from which the products can be shipped to international customers.

With only a few years of development we have built an effective partnership and maintained good relationship with blue-chip customers network globally. Our successful efforts to nurture and expand our network of customers and partners has enabled Masan Resources to generate in excess of 80% of its revenue from sales to an international customer base across Asia, North America, Europe and the Middle East, with the balance 20% generated from sales domestically.

Our customer relationship management strategy follows a partnership approach in which we seek to work with key personnel at all levels within each customer organization thereby allowing us to define the best solutions for all parties. As part of our strategy, we encourage non-proprietary exchanges with customers in an effort to share information on, but not limited to, analytical techniques, customer needs and product development.

Our products are sold to customers spread across different end-user segments and generally to repeat counterparties under established long-term contracts. In all cases, international prices are used as the underlying valuation within contract formulas to capture the product quality premiums and delivery & payments terms.



The Nui Phao mine's proven and probable ore reserves are estimated at 66 million tonnes, with an estimated mine life of 20 years. The plant is designed to process 3.5 million tonnes per annum of ore and produce copper concentrate, tungsten gravity concentrate, acid-grade fluorspar concentrate, and bismuth cement.



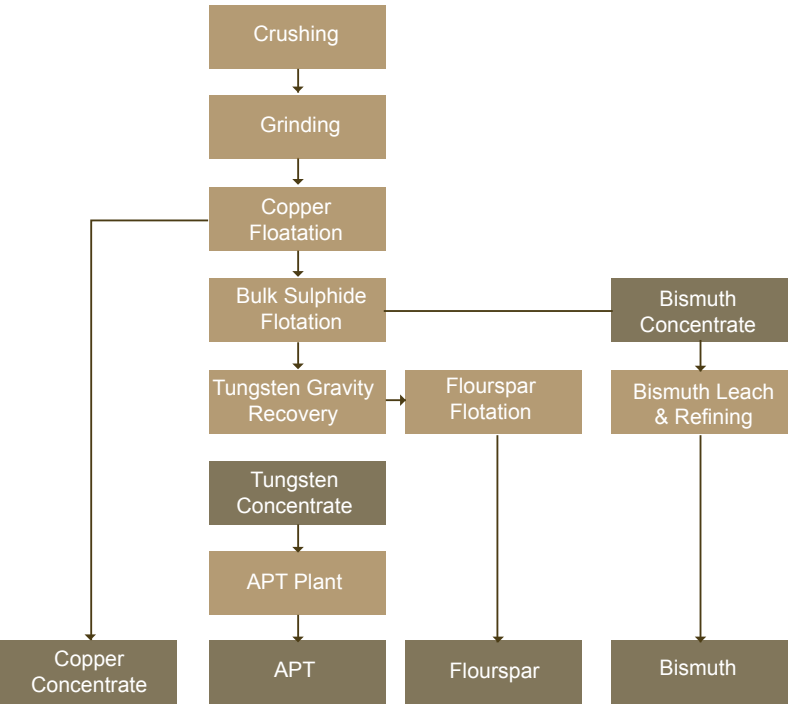
The major project components are:

- Open pit mine
- Waste rock disposal facilities
- Modern mine plant and facilities, including a crushing plant, grinding, thickening, flotation, and gravity recovery
- An Ammonium Para Tungsten (APT) plant that processes tungsten concentrate into higher value-added Ammonium Para Tungsten.

A tailings storage facility (TSF) with water and tailing management ponds

Buffer zones, relocation sites, haul roads, and mine services. Products from Nui Phao are shipped to worldwide markets from Quang Ninh Port (in Ha Long City, 197 km to the southeast of the Project). The port is also used to receive equipment and materials required to run the mine.

Process flow diagram



Sales by country (\*)



(\*) JV sales are included



CORPORATE STRUCTURE OF MSR

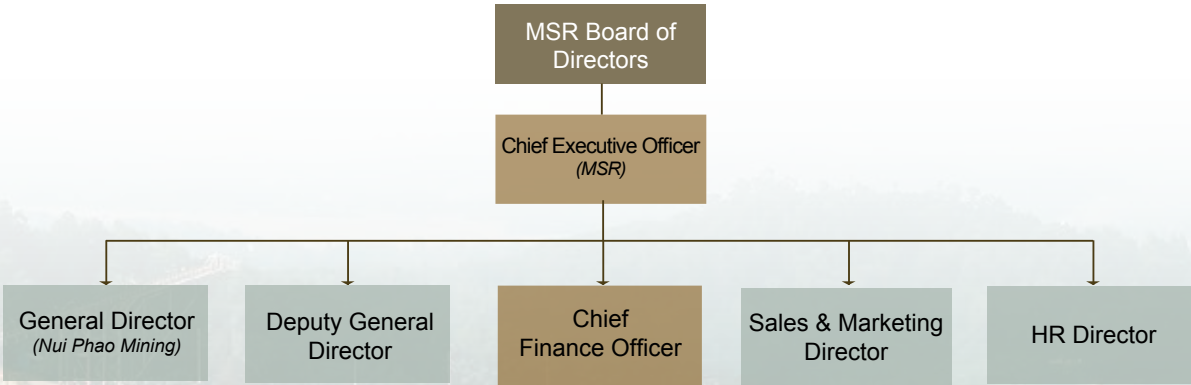
MSR Board of Directors

The Board of Directors is responsible for the overall management and direction of the Company. The Board of Directors typically meets when required, but at least every quarter, to review and monitor the Company’s financial position and operations.

List of members of the Board of Directors

Name	Position in the Company	Member	Date of appointment
Dr. Nguyen Dang Quang	Chairman of the Board of Directors	Non-Executive member	18/2/2013
Mr. Jonathan David Fiorello	Member of the Board of Directors	Non-Executive member	6/11/2014
Mr. Chetan Prakash Baxi	Member of the Board of Directors	Independent member	20/12/2013
Mr. Nguyen Thieu Nam	Member of the Board of Directors	Independent member	18/2/2013

The Organisation chart of MSR



Note: ■ Members of MSR Management Team

MSR Management Team

List of members of the MSR Management Team

Name	Position in the Company
Mr. Dominic John Heaton	Chief Executive Officer
Mr. Wayne Frank Apted	Chief Finance Officer



**Mr. Dominic John Heaton** (*Chief Executive Officer*) is responsible for developing the Nui Phao Project, leading Masan Resources’ exploration activities and building Masan Resources into a scalable multi-asset resource company. Over the course of more than 27- year career in the mining industry, Dominic has managed projects in remote areas of Australia, Papua New Guinea, Indonesia, and Lao PDR. Prior to joining Masan Resources, he served a variety of senior management roles at Aurora Gold/Oxiana/OZ Minerals/MM Group.

Dominic is tertiary degree qualified at James Cook University, La Trobe University, and the Melbourne Business School, Australia. He is also a member of Australian Institute of Mining & Metallurgy, the Australian Institute of Company Directors and on the executive of the International Tungsten Industry Association (ITIA).



**Mr. Wayne Frank Apted** (*Chief Finance Officer*) has over 20 years of finance experience in the mining industry. He was formerly a finance director for Glencore Plc., and Xstrata Plc., in Europe, Middle East and South-East Asia. He is a Chartered Accountant and graduated from Curtin University, Australia. Mr. Wayne is also Chief Finance Officer of Nui Phao Mining.



Management Team of Nui Phao Mining Company Ltd.,



**Mr. Craig Bradshaw** (*General Director*) has over 23 years' experience in the mining business, spanning mining and processing operations, logistics, and sales and marketing in Australia, Thailand and Lao PDR. Mr. Bradshaw was previously Senior Commercial Manager for Lang Xang Minerals Ltds Sepon Mine. He has also previously served as the Country General Manager for Thailand for Toll, Australasia's largest fully integrated logistics service provider.



**Mr. Vu Hong** (*Deputy General Director*) has more than 30 years of experience in project development including six years at the World Bank, which took him from Vietnam to Lao PDR, East Timor, China and the Philippines. Mr. Vu Hong graduated from Hanoi Water Resources University and has a Master's degree in Hydrology from the University of Roorkee, India.

Mr. Vu Hong is a member of the executive committee of the Business Association of Geology and Minerals of Vietnam (VAGME).



**Mr. Russell Griffin** (*Sales & Marketing Director*) has significant experience in marketing new and extended mines in Australia and Southeast Asia. Mr. Griffin previously worked for OZ Minerals Company. He graduated from South Australia University with a Bachelor of Business (Marketing) degree.



**Mr. Wayne Frank Apted** (*Chief Financial Officer*) has over 20 years of financial experience in the mining industry. Mr. Apted was formerly a finance director for Glencore Plc., and Xstrata Plc., in Europe, Middle East and South-East Asia. He is a Chartered Accountant and graduated from Curtin University, Australia.



# OUR APPROACH

- Vision and Mission
- Company execution strategy
- Ethics and integrity
- Sustainability framework
- Governance for sustainability
- Engaging with our stakeholders
- Materiality assessment





## VISION

Grow Masan Resources into an industry leader that is able to transform the global tungsten market

## MISSION

Masan Resources is working, within best-in-class parameters, to develop and expand our business with the aim of increasing shareholder value. We have assembled a team of world-class professionals with extensive international and regional experience who are passionate to show the world that a Vietnamese company can lead the transformation of the global tungsten market

### Company development objectives

In order to become an industry leader that is able to transform the global tungsten market, our development objectives are to:

- Achieve industry superior returns for our shareholders.
- Acquire, explore and develop value accretive assets to become the largest non-China producer of tungsten products.
- Constantly work to improve operational efficiencies and maintain cost discipline.
- Operate as one of the most environmentally sustainable global mining and processing companies with world-class safety standards.

### Community and social development objectives

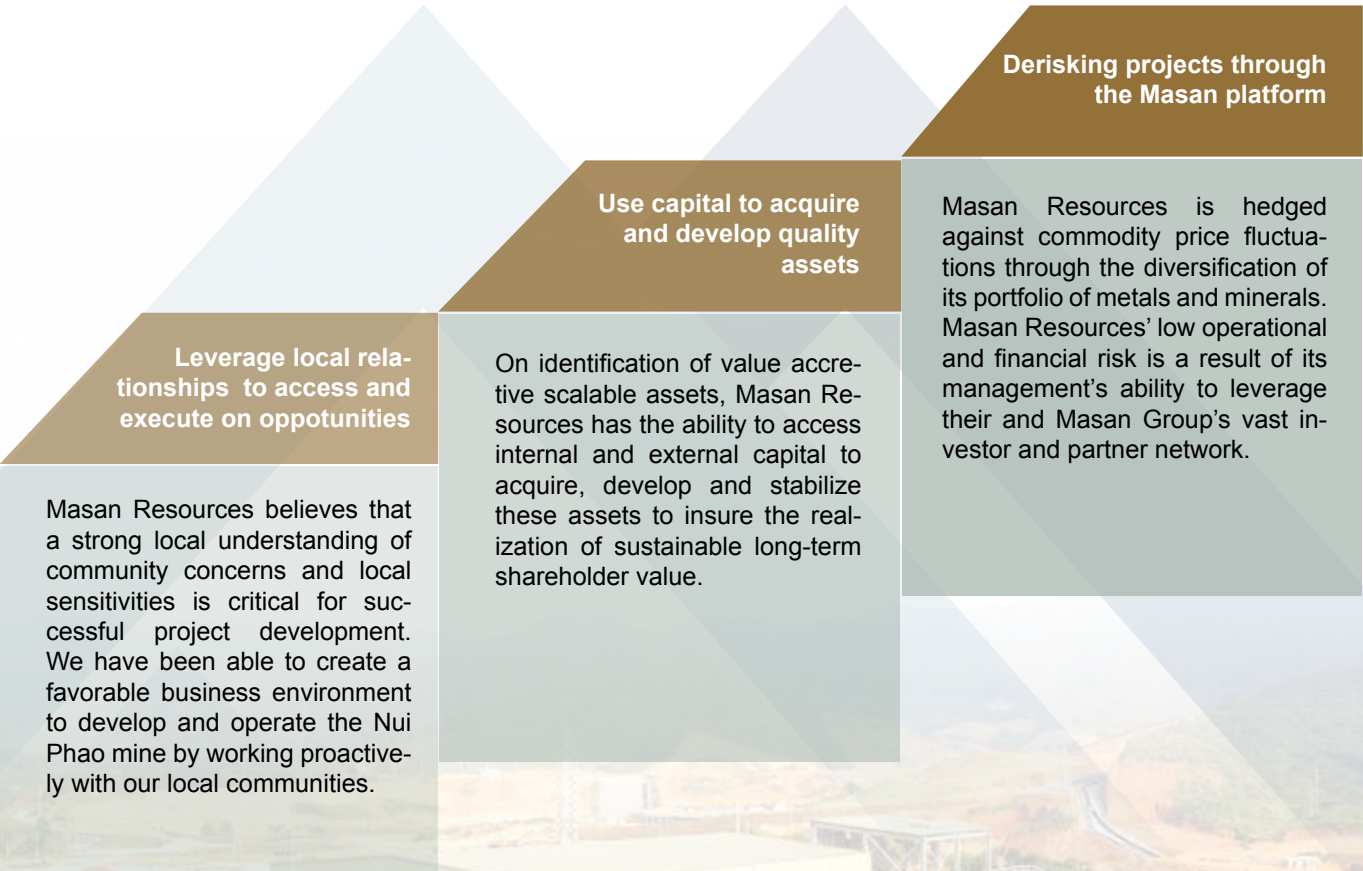
Through our values of Respect, Action and Results in all of our interactions, Masan Resources commits to continuously honor its responsibilities.

We care deeply about the impact of our project on the surrounding communities and the environment. Accordingly, our environmental and social plans are built in accordance with IMF Performance Standards and with Equator Principles (the 'gold standard' for social and environmental sustainability for mining projects) to add value to our communities and to minimize any adverse impacts on them from our project works.



COMPANY EXECUTION STRATEGY

Our execution strategy for building our business is focused on three key areas:



Assessable execution strategy of Masan Resources

Masan Resources commits to deliver shareholder value by leveraging off its four development pillars:

Organic and inorganic growth

As part of Masan Resources' approach to operations, we are constantly seeking to grow organically by optimizing our existing facilities to maximize productivity and efficiency. Through margin led improvement plans we aim to further reduce our unit cost of production. From the onset of mining operations at its Nui Phao asset, Masan Resource has successfully demonstrated its ability to grow the resource and reserve base at a rate greater than its depletion.

Masan Resources is seeking to acquire Tier 1 (high value, strategically positioned, long-life, and low cost production) reserves from distressed industry players or by carving-out specific non-core assets from larger integrated players.

Consistent focus on cost discipline and improving productivity

Mining as an industry is a long-term play. Masan Resources' consistent focus on cost discipline combined with relentless efforts to improve productivity enhances its ability to take long-term investment decisions and enables it to withstand pricing and market volatility.

Long-term capital

Masan Resources tailors its capitalization structure to that of the operational profile of its assets. The VND8.1 billion refinancing of our existing debt and the transformation of Masan Resources into a public company are steps we took in 2015 to secure the right form of capital to support our long-term strategy. Our listing on UPCOM allows us to reduce our cost of funds going forward as it provides lenders and strategic long-term investors a 'liquid currency' through which to better manage their risk appetite.

Leadership

Masan Resources, as a strategically important enterprise within Vietnam and the tungsten market globally, will continue to leverage its leading market position to set new industry standards, both locally and internationally, for operational efficiency, social and corporate governance, and safety. Our industry leadership position allows us 'first-look' at accretive opportunities on which we intend to selectively capitalize to grow shareholder value. Masan Resources will also seek to positively influence the development of supportive government policy and industry practices by taking leadership roles in local and international industry advocacy groups.



ETHICS AND INTEGRITY

Underpinning our sustainability approach is our corporate values – Respect, Actions and Results. It is translated to our people via a document outlining the behaviours that would demonstrate the values in day-to-day activities. Our policies set out what we believe in and what we promise to achieve in the areas of health and safety, environment, community relations, and goods and services procurement.

These three values are reflected in the company’s Code of Ethics and Business Conduct. Our Code reaffirms the high standards of business conduct required of all our employees, officers and directors. It was created as part of our continuing effort to ensure that we comply with all applicable laws, and act responsibly and with integrity with our customers, suppliers and the wider community. Anyone who violates the Code may be subject to disciplinary action, including possible dismissal.

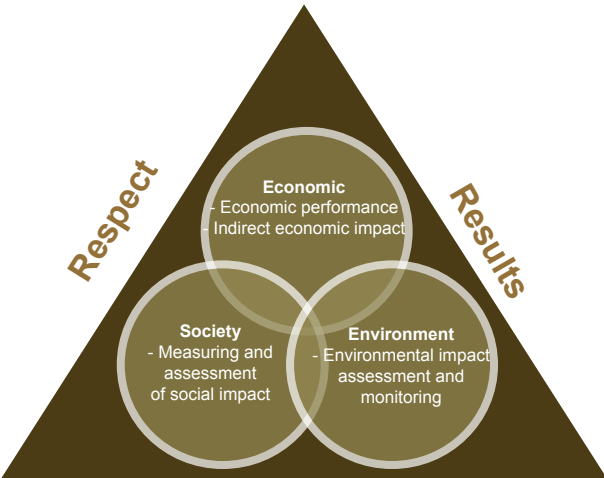
We believe in having integrity, acting upon it and treating everyone with dignity. Having integrity includes a no-tolerance policy on bribery and corruption, held to the highest standards. Our core values involve building partnerships by understanding our stakeholders, communicating openly and responding with accountability.



SUSTAINABILITY FRAMEWORK

Our core values govern our approach, meaning that we place equal importance on investor returns, people and community, the environment and sound governance that adheres to our ethics. Masan Resources is committed to compliance with international standards of corporate governance for the sustainable development of the Company in the long term. Therefore, Nui Phao is being developed in a manner that complies with Vietnamese regulatory requirements and World Bank guidelines/policies on social and environmental safeguards, and the Sustainable Development Framework issued by the ICMM for the mining sector. We do so by integrating these practices into all business areas towards highest standards of transparency and consistency.

To rigorously improve our approach, our priority is to identify and manage the material issues within our operation, and to integrate stakeholders’ concerns into day-to-day business activities and our decision-making process. In doing so, we enhance the trust we hold with stakeholders and ensure the longevity of the operation. We build and maintain enduring relationships based on recognition and respect with stakeholders including governments, partners, shareholders and local communities.

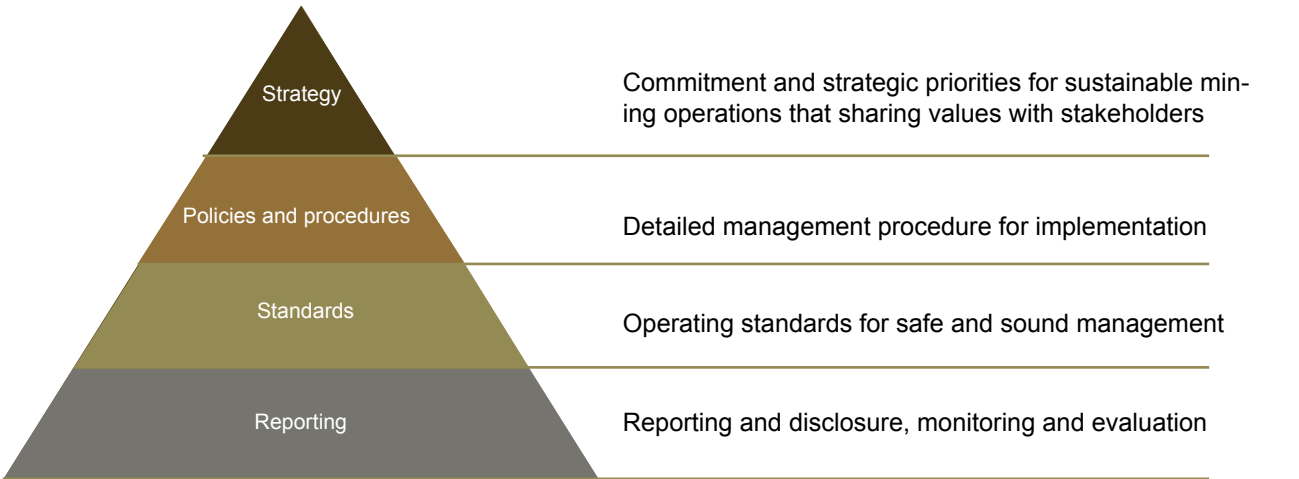


One interconnected approach is to implement proper environmental protection measures in order to account for the specific interests of local people and minimise any adverse effects on local communities. We are committed to being stewards of the natural resources we use, developing them through our business and striving to minimise our environmental impact.

Enable performance benchmarking

The sustainability framework makes our approach more effective by enabling us to benchmark our performance and continuously improve our sustainability initiatives. At the highest level, policies are designed to define the standards of measurement. Procedures are derived to monitor adherence to the Company’s standards, while

indicators enable top management and stakeholders to track our performance transparently. Targets are periodically reviewed and updated to align with our aspirations. Finally, reports are consolidated to present the information to our stakeholders.





Demonstrating commitments and initiatives

Our commitments and initiatives have been demonstrated through the following objectives:

- Operating in a consistent manner in line with leading international practices in all business areas towards transparency and consistency of corporate governance;
- Building and maintaining enduring relationships based on the recognition and respect with the stakeholders and contribute to the long-term economic, social and institutional development of our communities
- Seek continual improvement in safety, health and environmental performance through using robust management systems;

Applicable standards	Summary
IFC sustainability Framework (1)	The IFC Sustainability Framework sets out the IFC's strategic commitment to sustainable development as an integral part of the approach to risk management. The Sustainability Framework consists of Environmental and Social Sustainability Policy, the Performance Standards that defines responsibilities for managing environmental and social risks and Access to Information Policy articulates IFC's commitment to transparency
ICMM 10 Sustainable Development Principles (2)	<p>The Sustainable Development Framework includes integrating a set of ten principles and six supporting position statements into corporate policy, as well as setting up transparent and accountable reporting practices:</p> <ol style="list-style-type: none"><li>1. Implement and maintain ethical business practices and sound systems of corporate governance</li><li>2. Integrate sustainable development considerations within the corporate decision-making process</li><li>3. Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities.</li><li>4. Implement risk management strategies based on valid data and sound science</li><li>5. Seek continual improvement of our health and safety performance</li><li>6. Seek continual improvement of our environmental performance</li><li>7. Contribute to the conservation of biodiversity and integrated approaches to land-use planning</li><li>8. Facilitate and encourage responsible product design, and the use, reuse, recycling, and disposal of our products</li><li>9. Contribute to the social, economic, and institutional development of the communities in which we operate</li><li>10. Implement effective and transparent engagement, communication, and independently verified reporting arrangements with our stakeholders</li></ol>

(1) [http://www.ifc.org/wps/wcm/connect/Topics\\_Ext\\_Content/IFC\\_External\\_Corporate\\_site/Sustainability+and+Disclosure/Environmental-Social-Governance/Sustainability+Framework](http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_site/Sustainability+and+Disclosure/Environmental-Social-Governance/Sustainability+Framework)  
(2) <http://www.icmm.com/our-work/sustainable-development-framework/10-principles>

SUSTAINABILITY GOVERNANCE

We embed our sustainability framework into all our operations. Our operations are driven by the directives set out by our Board of Directors, who have the duty to align our policies and strategic goals with our business vision. The Board of Directors and the Management Team regularly review sustainability performance and conduct evaluations against targets and ensure that we are on track to implementing our strategy.

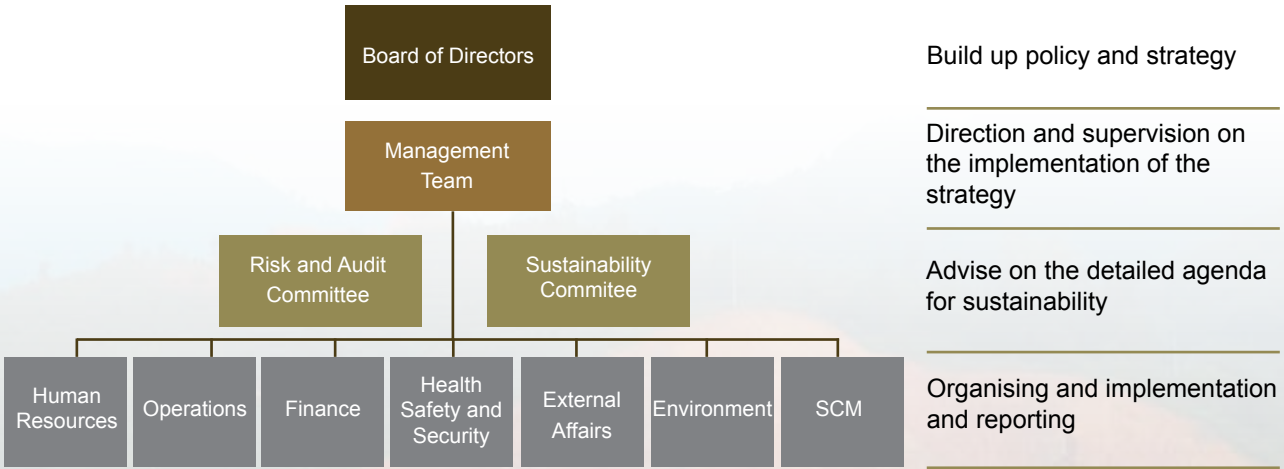
Executive Management including the CEO, Directors of External Affairs, Operations, HR, HSS, Environment and SCM, and the CFO are tasked with direction and supervision of strategy implementation at an operational level. Each department is delegated a part of our sustainability taskforce and works to meet the expectations of our various stakeholders.

At an operational level, each employee is scheduled for a periodic review to discuss their personal performance and needs. Rather than having a hierarchical flow of information, our performance appraisal facilitates an exchange of information. Through this process, we rein-



Management Team of Masan Resources and Nui Phao Mining

force our values and Code of Conduct by allowing feedback to key management personnel and adapt to the needs of employees as they arise. The specific process as well as data on evaluations conducted is detailed on page 36.



The management team operates two committees – the Risk and Audit Committee and the Sustainability Committee - which deliver detailed analyses of key issues. The duties included but not limited to:

- Giving opinions to the Board of Directors, Management team on strategic plan for sustainability and ensuring on an effective stakeholder engagement
- Examine the actual implementation and monitoring Company sustainability performance through initiatives on the provided indications by the Management team.
- Enhance the Company reputation through a broad participation in sustainability program and creating shared value to the community and society as whole.



ENGAGING WITH OUR STAKEHOLDERS

Engagement with key stakeholders plays an important role in our business operations and helps build positive perceptions that contribute to our smooth operation.

Our stakeholders are the many and varied groups and individuals who have a 'stake' in our project in that they are affected either positively or negatively in some way by our development, or they have the ability to impact on our business.

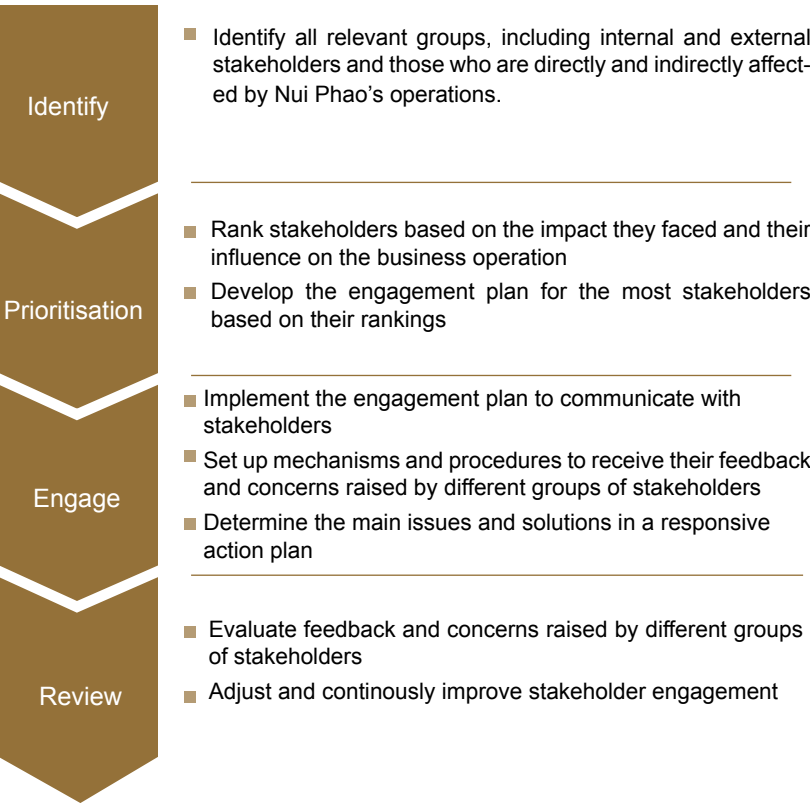
We are committed to ongoing and honest dialogue; transparent, timely and fact-based communications; and the consideration of stakeholder views in our decision-making. These elements are critical to building trusting relationships based on mutual respect and to managing the risks present in our business.



Consultation with village leader of Tan Linh commune on community development project

Stakeholders identification and prioritisation

Our stakeholder engagement process has been conducted in stages from identifying the all stakeholders, prioritising the groups to implementing a constructive dialogue with key stakeholders. The graph below provides more detail on our process.



Our key Stakeholders

Through this process, we have identified our primary stakeholders including our shareholders, employees, the local community, the government, and our partners, customers and suppliers. By respecting their terms during engagement, we have set up a variety of communication channels such as surveys, interviews and face-to-face meetings, some specifically tailored for each type of stakeholders. We adapt to each group in order to facilitate a constructive dialogue and seek feedbacks during these engagements. Information is exchanged through these channels to provide stakeholders with necessary information that addresses any critical concerns. Two-way stakeholder engagement is vital to building trust and understanding, and to adapting to changing expectations, creating new perspectives between stakeholders, and ensuring that companies create value where it is most appropriate. The figure below summarises our key stakeholders and their expectations.

An illustrated diagram on the key stakeholders and their expectations as seen below:

Our neighbouring communities

The nature of mining makes our activities geographically bound, and our operations heavily impacts local people's lives. At the same time, the degree to which our business operates smoothly is partially dependent on public perception, where a failure to meet demands can result in lockouts. The heavy interdependence in our relationship with our communities, therefore, prompts us to place importance on ensuring that their lives are not worse off due to our presence. Engaging openly, by maintaining platforms to exchange ideas such as monthly community meetings, with surrounding communes is important for us to understand their needs, and take their views and concerns into account in our decisions.

We strive to achieve long-lasting socio-economic development progress by working together with our communities and build mutually beneficial relationships.

PCDP as one of our communication channels

As part of the Public Consultation and Dissemination Plan (PCDP), Project-Affected People (PAPs) and relevant stakeholders are encouraged and guided to share and raise their requests, concerns and complaints by writing directly to us.

We worked with the government authorities of Thai Nguyen Province in settling people's concerns to ensure the understanding of and support from the local community on project impact management. Our community resettlement program has been designed in consultation with PAPs and community investment has been implemented with a focus on livelihood re-establishment, economic restoration and other support for the families who were affected to help them adapt to resettlement. Local community development through direct investment, sponsorship, donations or in-kind contributions is based on the needs assessment carried out through engagement with the government, local businesses and other stakeholders.

The needs assessment was conducted through the stages detailed below:

- Conducting baseline studies and social impact assessment and management.
- Understanding living standards in the local region, such as health and education standards, income levels, employment opportunities and community infrastructure.
- Assessing direct social benefits and opportunities available to the local communities including jobs and the development of local businesses, infrastructure developments, spending in the local economy, and the flow of taxes and royalties.

Towards a broader engagement

Masan Resources is committed to working with stakeholders to achieve appropriate and effective public policy, with regulations that facilitate sustainable development for the mining and minerals industry.

Having worked in a number of industry associations including ITIA, Mr. Dominic Heaton - CEO of Masan Resources - has been elected as a member of the Executive Committee. He has a long-term vision to operate Nui Phao as a showcase model of mining and mineral processing in Vietnam. Masan Resources is also one of the founding members of the VAGME. Mr. Vu Hong, Deputy General Director, has also been elected as member of the Association's Executive Committee for the 2015-2020 tenure, and additionally as Head of the Science and Technology Board.





## Summary of stakeholders' expectations

Stakeholders	Communication mechanism	Expectation	How we meet their expectations
<b>Government</b>	Reporting; media (newspaper articles and TV news reports); workshops and road shows, newsletters; presentations, seminars and meetings	<ul style="list-style-type: none"> <li>- Generation of economic growth through job creation, tax payments, supplier localisation</li> <li>- Compliance and transparency in information disclosure</li> <li>- Implementation of the resettlement programme in compliance with relevant legislation</li> <li>- Socio-economic development programmes for communities, job opportunities for affected people</li> <li>- Establishment of harmonious relationships with communities</li> <li>- Environmental and social impact management and sustainability agenda</li> </ul>	<ul style="list-style-type: none"> <li>- Contribution through economic restoration and community development programmes at different levels, independently or in partnership</li> <li>- Resettlement of communities in compliance with regulations and government policy</li> <li>- Application of local outsourcing supply model, supporting enterprises and job creation in the area</li> <li>- Participatory rural appraisal approach: community-based need assessments, programmes formulated and implemented based on communities' self-assessed needs</li> <li>- Periodic meetings with authorities, both local and national; two inspections conducted annually by local authorities on our environmental performance</li> </ul>
<b>Communities</b>	Reporting; media (newspaper articles and TV news reports); inspection; newsletters; presentations; information disclosure system (loudspeakers, information corners; community information centres; other publications (brochures, leaflets and calendars)	<ul style="list-style-type: none"> <li>- Resettlement and compensation policies</li> <li>- Infrastructure development for the local area</li> <li>- Contribution to achieving social and economic development objectives</li> <li>- Employment and job opportunities for local people</li> <li>- Timely and responsible responses to community complaints</li> <li>- Support in developing farm-based and non-farm-based income generation programmes</li> <li>- Capacity-building for the local community and assistance in preserving and promoting indigenous cultural values</li> </ul>	<ul style="list-style-type: none"> <li>- Full compliance and transparency in information disclosure</li> <li>- Prioritisation of infrastructure and environment projects, construction of houses for poor households and war veterans affected by Agent Orange</li> <li>- Economic restoration programme (economic restoration fund, local outsourcing, agricultural extension service projects)</li> <li>- Local labour recruitment policy</li> <li>- Complaints and grievances mechanism</li> <li>- Sharing of knowledge and skills with local people (safety, environmental protection; first aid training etc.)</li> <li>- Construction of cultural houses in resettlement sites, support for exhibitions</li> <li>- Community meetings held with a total of 845 participants by the end of 2015</li> <li>- Resolution of a total of 283 requests and complaints from communities</li> </ul>
<b>Partners (local enterprises, NGOs, Women's Union)</b>	Meetings; presentations; information disclosure system; media releases and other publications	<ul style="list-style-type: none"> <li>- Sharing of resources (including but not limited to financial resources and expertise) to build the competitiveness and comparative advantage of local enterprises</li> <li>- Shared value creation through community and regional development programmes – local infrastructure development, community health</li> <li>- Environmental management and compliance</li> </ul>	<ul style="list-style-type: none"> <li>- Building effective partnerships through investing in local enterprises, microfinance programs</li> <li>- Workforce localisation</li> <li>- Community development and economic restoration programmes</li> <li>- Public-private partnership in implementation of modern rural programmes (infrastructure, environment, clean water)</li> <li>- Information disclosure on our mining operations, their impact and our CSR activities</li> </ul>

Stakeholders	Communication mechanism	Expectation	How we meet their expectations
<b>Employees</b>	Meetings; presentations; quarterly reports; complaints and grievance mechanism; newsletters; training programmes; relations with the trade union, employee surveys	<ul style="list-style-type: none"> <li>- Occupational health and safety</li> <li>- Training and education for development</li> <li>- Wages and working conditions</li> <li>- Remuneration and rewards</li> <li>- Employee motivation</li> <li>- Job security and opportunities and support for career development</li> <li>- Career transition in the event of termination</li> </ul>	<ul style="list-style-type: none"> <li>- Stringent health and safety codes with a committee to oversee compliance</li> <li>- Training and education programmes – regularly conducted based on needs assessments, with a focus on safety in 2015</li> <li>- Equal opportunities and pay for men and women</li> <li>- Regular performance reviews and training if necessary</li> <li>- Performance-based salary, bonus</li> <li>- Two-way discussions between the Company and its employees</li> </ul>
<b>Shareholders</b>	Meetings (annual and one-to-one); reports; presentations; publications; media (newspaper articles and TV news reports); events	<ul style="list-style-type: none"> <li>- Business performance and generation of returns for shareholders</li> <li>- Insulation of business from fluctuations in commodity prices</li> <li>- Board and governance</li> <li>- Strategy for sustainable development</li> <li>- Above industry average health and safety records</li> <li>- Compliance with regulations and environmental standards</li> </ul>	<ul style="list-style-type: none"> <li>- Maintenance of low costs and increasing production</li> <li>- Disclosure of risks, impacts and management systems</li> <li>- Maintenance and continuous improvement of health and safety and environmental standards to minimise impact</li> <li>- Community development programmes for sustainable development</li> <li>- An Annual General Meeting held with the attendance of 400 shareholders</li> </ul>
<b>Customers</b>	Meetings; presentations; site visits; questionnaires; publications; events,	<ul style="list-style-type: none"> <li>- Maintenance of low prices for products</li> <li>- Product safety</li> <li>- Quality of products</li> <li>- Responsible sourcing</li> </ul>	<ul style="list-style-type: none"> <li>- Localisation of resources</li> <li>- Product quality control through quality management system</li> <li>- Customer oriented management</li> <li>- Customer satisfaction survey</li> </ul>
<b>Suppliers</b>	Meetings; presentations; site visits; questionnaires; publications;	<ul style="list-style-type: none"> <li>- Sustainability in economic performance – supply opportunities, payment process</li> <li>- Fairness in suppliers' contractual conditions, specifically code for responsible sourcing and supply chain management</li> <li>- Contractor selection - health and safety, management procedures</li> </ul>	<ul style="list-style-type: none"> <li>- Induction and training for contractors</li> <li>- Commitment to localisation of resources</li> <li>- Fair and open supplier assessment</li> <li>- Health and safety requirement and assessment (compliance, risk assessment)</li> <li>- Management system to ensure fairness to prevent conflict of interest and fraud</li> </ul>



MATERIALITY ASSESSMENT

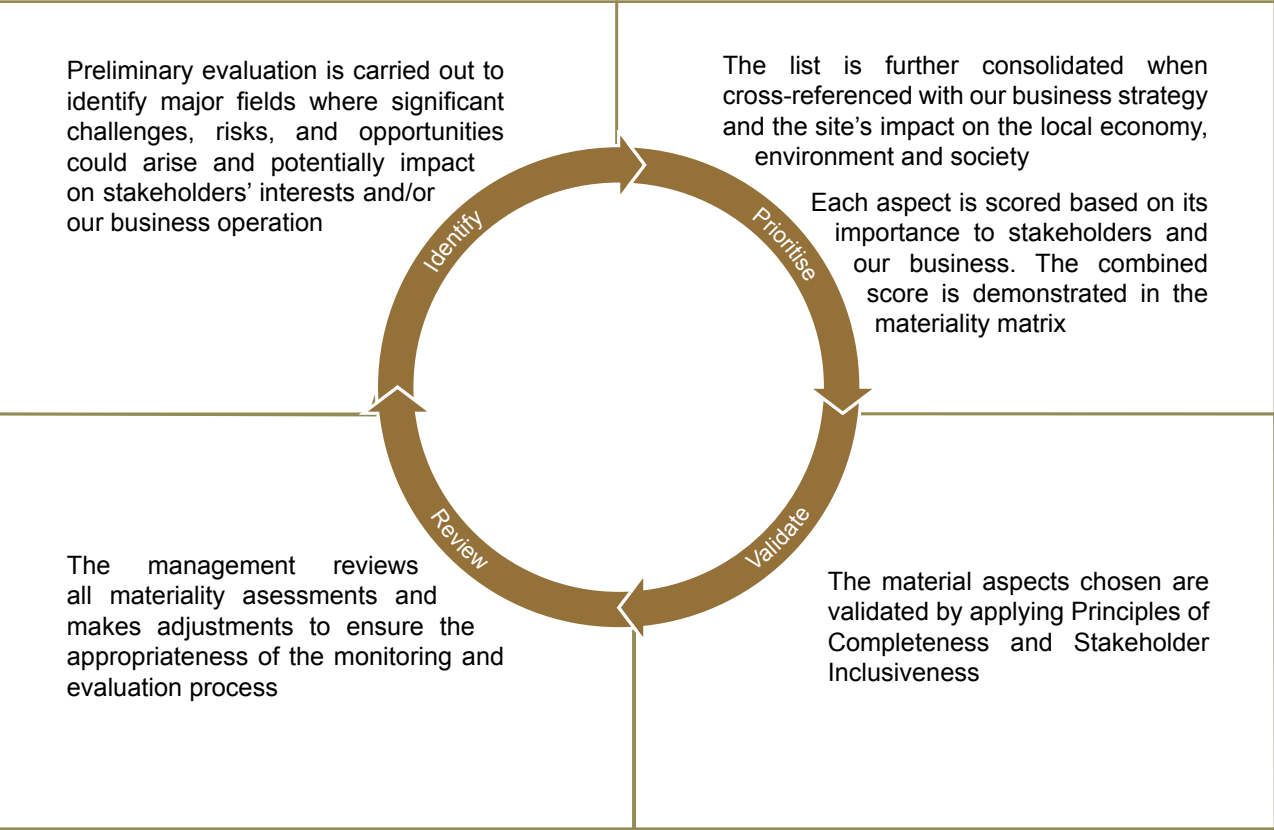
Material aspects are the basis for the company to address stakeholders’ concerns and to build the effective partnerships, and help to maintain our licence for operation. Identifying material aspects sensitises our business to emerging socio-economic and environmental risks, keeps us well informed of stakeholders’ evolving needs and positions our business to maximise opportunities.

Our method and process

We have piloted our process for defining material aspects by identifying and prioritising sustainability related aspects using a point-based system with regard to: value drivers, cost reduction and risk management. We have cross-referenced the shortlist of aspects with the results from stakeholder engagement to reflect their interests and concerns.

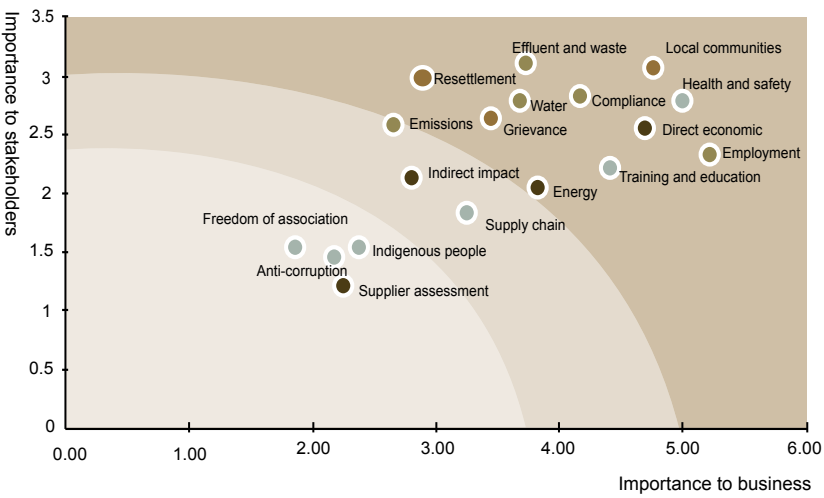


Supervision at the grinding area at the Processing plant

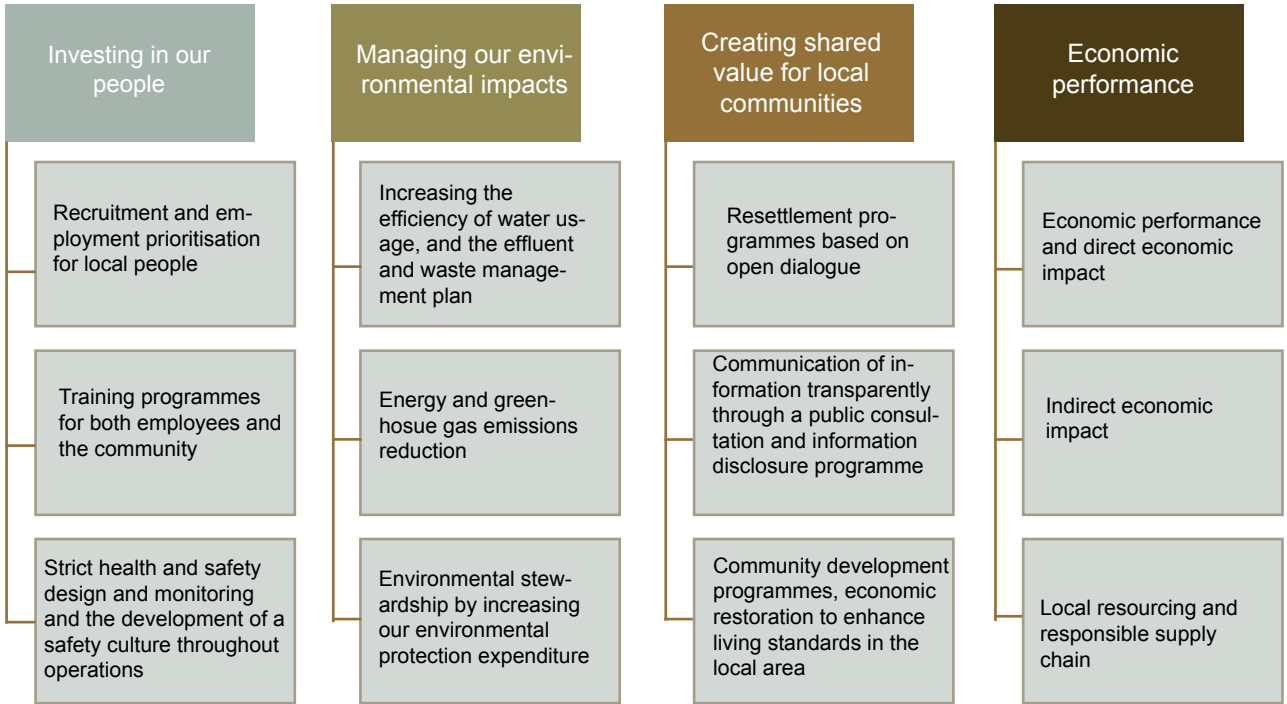


Our Materiality matrix

The results of the process are presented in the materiality matrix, which identifies fourteen key aspects that are most material to our business operation and are of high interest to our stakeholders. This list will be reviewed periodically to update the boundaries and align them with the business strategy.





Material aspects have been identified in groups and focused on following categories: investing in people, managing environmental impact, creating shared value to the community and economic performance. Under each category, Company has identified the key programs for investment and implementation toward sustainable development in the long term.




This report is structured according to the identified material aspects and details our management approach, programmes and indicators as well as our performance relating to these four strategies in 2015.





Sustainability performance review year 2015


Area	Target	Implemented	Perfor- mance met
People	<ul style="list-style-type: none"><li>• Implement the Future Leaders program.</li><li>• Strengthen the performance management system with the development of specific key performance indicators for all employees in supervisory and management roles.</li><li>• Build capability and capacity within the organisation to meet future growth ambitions.</li></ul>	<ul style="list-style-type: none"><li>• Future Leader programme established to focus on professional development for employees.</li><li>• Worked with Hanoi National University (HNU) on Competence Assessment and Training Program.</li><li>• A range of training courses facilitated for our employees and managers. Advanced Negotiation seminar held for effective influencing skills.</li></ul>	
Health and Safety	<ul style="list-style-type: none"><li>• Return to zero LTIFR, achieve a TRIFR of &lt;1.0 by the end of 2015.</li><li>• Conduct safe vehicle checks, blood alcohol tests and drug tests to ensure fitness for work.</li><li>• Establish a safety, health, environment and community committee and hold periodical meetings.</li><li>• Train selected staff in root case analysis and risk management.</li><li>• Roll out Management of Change safety behaviour program.</li><li>• Conduct health awareness about family planning and preventing back injuries.</li><li>• Relocate the clinic to the plant site and continue to upgrade its facilities.</li><li>• Continue to build strong relationships with medical facilities and providers.</li></ul>	<ul style="list-style-type: none"><li>• Achieved 13 million man hours LTI free achieved; LTIFR and TRIFR was zero and 0.54 respectively for 2015.</li><li>• Testing program completed.</li><li>• Health, Safety, environment and community committee established to advise the management team on focus areas.</li><li>• Rolled out safety training program on monthly basis.</li><li>• Occupational health monitoring carried out on a quarterly basis.</li><li>• Medical training and health program continued.</li></ul>	

Area	Target	Implemented	Perfor- mance met
Environment	<ul style="list-style-type: none"><li>• Develop a rehabilitation and closure plan for the mine site and associated infrastructure.</li><li>• With an international specialist, complete the site water balance plan.</li><li>• Install the new water treatment system.</li><li>• Progress our geochemistry program for the classification of waste rock to avoid acid rock drainage.</li><li>• Achieve government certification for the commitment on the EIA of the APT plant.</li><li>• Benchmark our energy use and greenhouse gas emissions and develop an efficiency action plan.</li><li>• Conduct quality control/ assurance training courses in environmental monitoring.</li></ul>	<ul style="list-style-type: none"><li>• Rehabilitation and mine closure plan in progress.</li><li>• Water balance completed for the mine site</li><li>• Wastewater treatment plant (WWTP) put into operation</li><li>• Obtained government approval on the EIA and the commitment.</li><li>• Benchmarking completed for energy use and energy efficiency program developed.</li><li>• Completion of training course by five environmental technicians who obtained certification.</li></ul>	



Area	Target	Implemented	Performance met
Community	<ul style="list-style-type: none"><li>• Continue to use grievance settlement mechanism within PCDP</li><li>• Continue to support infrastructure development in the project affected area.</li><li>• Conduct capacity-building for local communities include Ha Thuong, Hung Son, Tan Linh and Phuc Linh</li><li>• Assist in agricultural extension and sustainable market development for the VietGAP tea producers in Dai Tu district.</li><li>• Continue to support our local enterprise partners.</li><li>• Expand local household businesses through economic restoration fund.</li></ul>	<ul style="list-style-type: none"><li>• Complaints quickly resolved, to the satisfaction of both parties where possible.</li><li>• Approximately VND511 million provided for the construction of aggregate road for Tan Linh commune; VND473 million contributed to the construction of the Suoi Bat concrete road in Hung Son Town</li><li>• First aid training course provided for the local commune</li><li>• Help provided to households to obtain Vietnamese Good Agricultural Practices (VietGAP) certification (issued by the Ministry of Agriculture and Rural Development in 2008).</li><li>• Two more outsource supply models (catering service and An Binh transportation cooperative) supported, creating jobs for more PAPs.</li><li>• Generated a micro - finance fund of VND 1 billion for 28 beneficiaries</li></ul>	

 Fully meeting target

 Almost meeting target



# INVESTING IN OUR PEOPLE

Employment recruitment  
Training and education  
Occupational health & safety

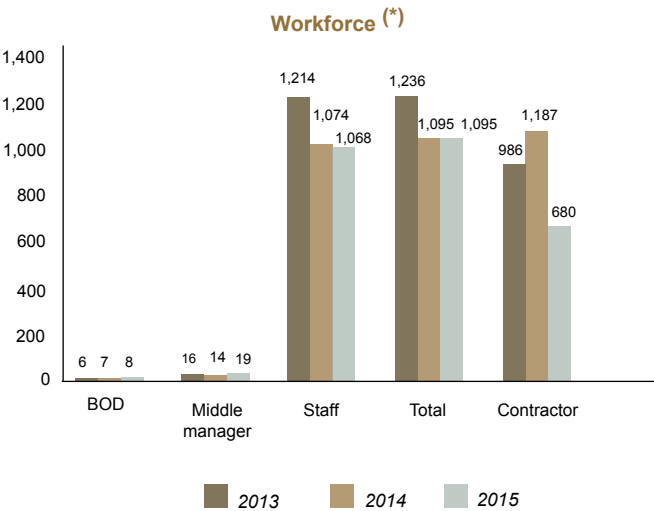
The successes that we have or will achieve stem from effective partnerships, starting first and foremost with our employees. Masan Resources subscribes to the philosophy that human capital is a key driving factor differentiating successful from unsuccessful companies and is vital to the business. We make concerted efforts to invest in our people by encouraging and empowering every employee to achieve their full potential. As a result of the restructuring programme, we are confident in having the right people tasked with the right job in the right place. We maintain an employee reward programme and provide opportunities to help our people grow and be successful in our business operations. We conduct needs assessments to understand employee needs and concerns, and appropriate training programmes are delivered in response throughout the year. Only by training our staff to become competent employees and providing opportunities for them to contribute their talents can we achieve our vision.



EMPLOYMENT & RECRUITMENT

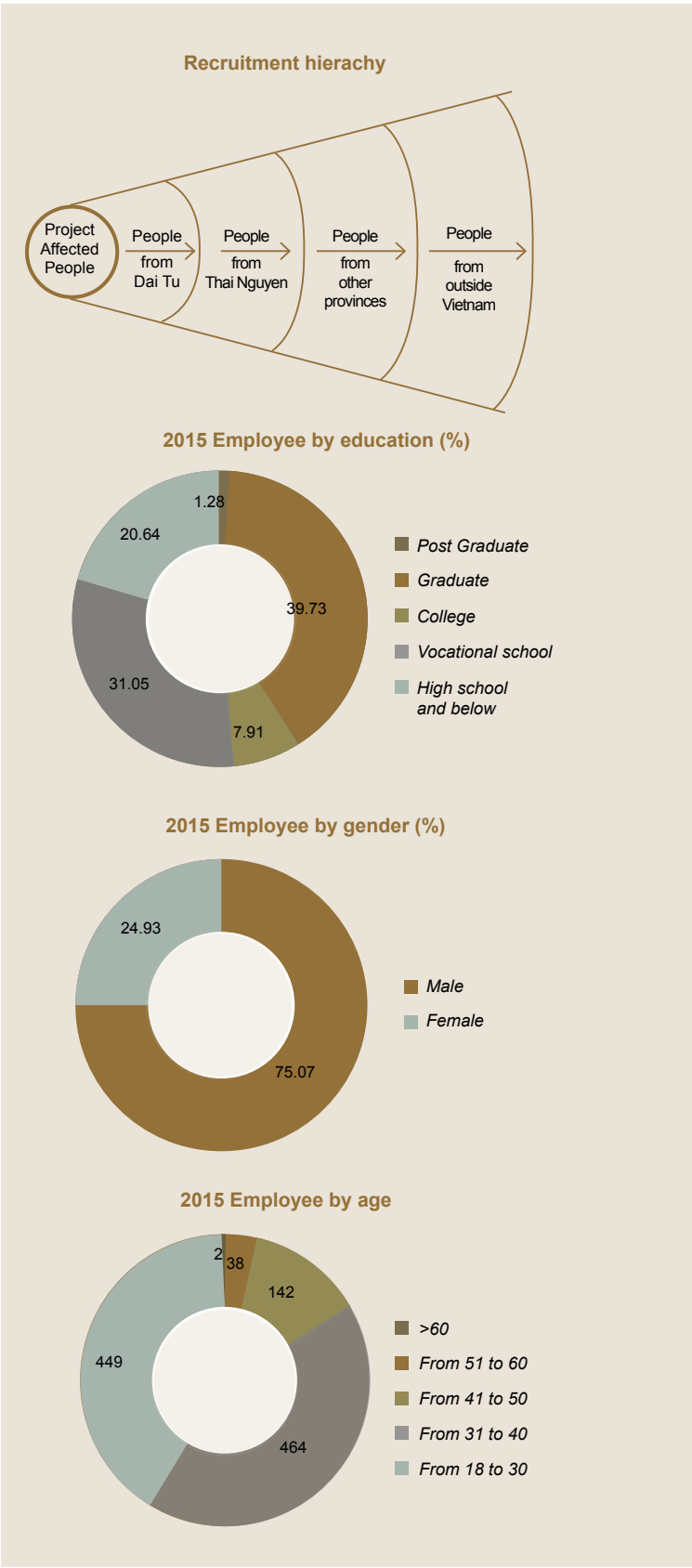
We continuously look to employ competent and experienced individuals as the drivers of our company's success. Employment opportunities and policies, such as competitive salary and benefits packages, are designed to attract both potential talents and experienced hires at managerial level.

Additionally, a prioritised recruitment policy for PAPs has been put in place. Being acutely aware of the loss of farm-based livelihoods experienced by local communities due to our operations, our policy ensures that this group of stakeholders is considered for all employment opportunities. We follow the hierarchical priority given to local community members, whether they are affected directly or indirectly by the project, followed by residents of the district and province of our operations and Vietnamese nationals, in order to maximise the economic benefits afforded to the local community.



Human Resources and Administration team

(\*) Excluded of Nui Phao H.C.Starck Joint Venture



In order to be able to constantly deliver outstanding performance from all business activities, the Company continues to invest in its employees. Recognising that ambition's requirements, the Company has meticulously developed a team of highly experienced international mining industry professionals. As of the end of 2015, the Company's diverse and highly educated execution team was comprised of employees from 17 nationalities, 44% of which had university or higher degrees.

As our employees are central to the success and safety of our operations, we strive to retain current employees and attract new talents through a competitive salary policy. To sustain our appeal, we participate in salary surveys conducted by professional companies, such as HAY, Tower Watson and Mercer, as well as subscribe to annual salary survey reports and specific reports for certain roles. This enables us to benchmark our policies against our competitors and make adjustments if necessary.

Employee wages and benefits



Translators working in group

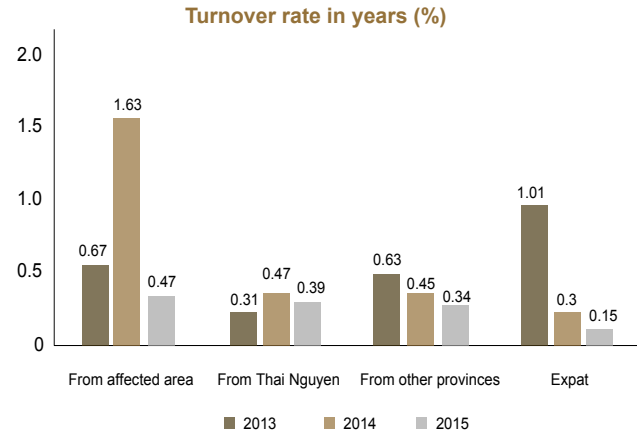
	2013	2014	2015
Total number of employees	1,281	1,095	1,095
Vietnamese	1,130	976	973
Expat	151	119	122
Average income for Vietnamese VND million per month	8.7	9.7	10.2



Periodical measurement of working environment

We believe in taking care of our employees, both during and after their time working for us. Therefore, our workforce receives benefits packages that comply fully with all compulsory social insurance, health insurance and unemployment insurance requirements. We take pride in the fact that, so far, none of our employee or former employees has faced any recorded issue in claiming these benefits. Furthermore, the Company provides additional 24-hour medical and accident insurance for its employees and their dependents.

We are continuously striving to improve our working environment by ensuring that we hear from both our employees and managers. Our approach is two-pronged: performance appraisal and periodic opinion exchange. The two-way exchange allows open dialogue to be facilitated and feedback to be exchanged both ways.





TRAINING AND EDUCATION

At Masan Resources, we believe in creating a work environment that nurtures our employees and encourages them to reach their full potential. As our workforce directly impacts our success, investing in our employees and sharpening their skills is investing in our company's sustainable future. Given that training programmes have yielded impressive results – boosting our production level while maintaining impeccable safety records – we have continued to expand the coverage of training programmes in 2015. We implement this philosophy in two forms: internal training conducted by experienced expat trainers and subject-based training by professional units both inside and outside of the country. These programmes are designed based on two-way communication between departments to prioritise and meet any immediate training needs as required by the operation.

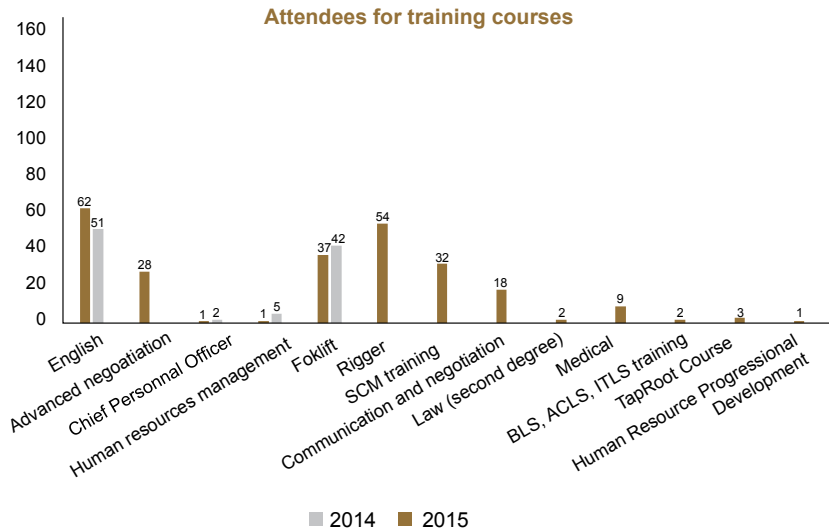


Group work in control room

Internal training

Internally, we offer various training courses to our employees and managers throughout the year, ranging from life skills such as family planning and first aid training to work-related skills such as communication and negotiation and Human Resources management. These training courses can be conducted by different departments within Nui Phao and include induction training and on-job training.

Prior to officially starting work, the new employees will be guided on the Company's policies, regulations and procedures related to the daily activities in which they will be involved. Every employee will be equipped with essential knowledge so that they can quickly and safely integrate into the Company's work environment. On-the-job training involves the sharing of experience and professional knowledge and assistance in improving work performance between colleagues in a department or between departments, or as directed by the Department Manager.



Subject-based training

Subject-based training takes place when the Company periodically assigns employees to attend training courses on specific subjects to meet legal requirements in areas such as firefighting or for the acquisition of professional knowledge. Or employees may attend courses to improve awareness, problem-solving ability, etc. When these external training courses take place, we send a few representatives and in turn, they extend their knowledge/competencies to their colleagues, thereby encouraging a cooperative environment.

Our Advanced Negotiation Skills seminar held on 19-21 August 2015 was aimed at enhancing the capacity of 28 managers and supervisors. Participants were guided on negotiation style and effective influencing skills to facilitate effective negotiation. As a direct result of the training, the company can reap business benefits from our competent workforce.



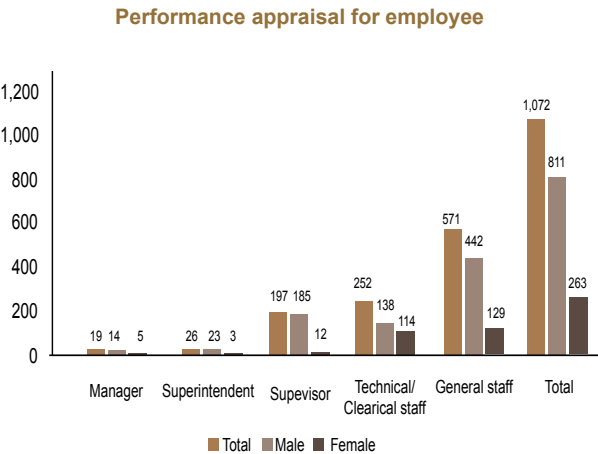
Performance management

Working closely with specialists from Hanoi National University, the HR Department designed a Competence Assessment and Training Program. This includes four stages: build the competency dictionary for Nui Phao Mining; define and assess the competency framework; analyse training demands and propose training programmes for enhancing employees' capacity and skills; and build and deploy training programmes. Specialists from HNU analysed and proposed the proper training programmes, based on which the HR Department successfully coordinated with various other departments to

implement a competency-based training and assessment programme designed to enhance soft skills that remained weak among the workforce. The groups of Technician (Level II), Supervisor (Level III), and Superintendent (Level IV) were the main participants as they hold strategic positions that will enable them to directly and immediately realise the Company's mission and vision. This programme has enabled us to standardise the organisation's knowledge, as well as fill gaps in competency requirements and reduce excess expenses.

Performance Appraisal Programme

The implementation of staff performance appraisal is an important element of continuously improving business performance. All employees must have their performance appraised annually as a minimum. The procedures involve input from both the manager and the employee, where both sides are given appropriate times to review the forms provided about evaluating their performance and to prepare their discussion. This ensures a fair process where employees are included in the discussion. Unscheduled appraisal may also occur in some specific cases such as: extension of employment contract, promotion or poor performance. In 2015, a total of 1,072 employees have received performance appraisal. The chart below details the number by employee level and gender.





Depending on the Company's financial circumstances, in the optimum conditions, the rewards for performance are given to employees who have worked at the company for 12 months or more. Rewards range from half a month's salary to two months.

#### Future Leaders programme

This programme has been implemented throughout the year 2015 and focuses on professional development for the employees. It selects outstanding performers who are ready to become future leaders.

The Company seeks to strengthen the performance management system with the development of specific key performance indicators for all employees in supervisory and management roles.



Participants of the "Leaders of the future" training course

#### Nui Phao Stars

Our Nui Phao Stars programme is also designed with encourage actions that promptly recognise individuals / teams with outstanding performance each month to develop a positive, safe and cost-saving work environment while consolidating the our core values of Respect, Action and Results. Those who have demonstrated outstanding performance will be nominated for Monthly Star Award for the consideration of the Management Team.



Receiving the Monthly star award

#### Focus 2016 – Human Resources Management

- Performance management (probation, regular, and improvement plan, KPIs)
- Salary range and fringe benefits for each positions on the base of competency assessment
- Rewarding program
- Trade Union Collective agreement
- Labor rules and regulations to cover new raised issues
- Forms and procedures to be updated
- Succession planning review for positions from Leading hand to Director
- Training materials development for all 2016 shortlisted items
- 2016 Training Program Deployment
- Online learning module development – intranet base
- Competency assessment for the rest of positions
- Training need analysis for 2017
- Development of recruitment page on popular social websites (at least 3 websites)
- Database of positions for Internship opportunities
- Quarterly employee dialogue by subject
- Conduct of two employee satisfaction surveys

## OCCUPATIONAL HEALTH AND SAFETY

Health and Safety aspect continued to be our priority in 2015, and we ensured their strong presence onsite. Our primary objective – now and always – is to ensure that our entire workforce gets home safely after every shift, and we expect the same from our contractors. Both employees and contractors working at the site are subject to the Company's strict safety measures. We believe safety is a journey and in order to continually improve our track record, we need to bring our employees along with us.

The Health and Safety department has provided continuous safety training and drills throughout the year, thereby building a strong safety culture.



Safety check in the crusher area

#### Safety reporting

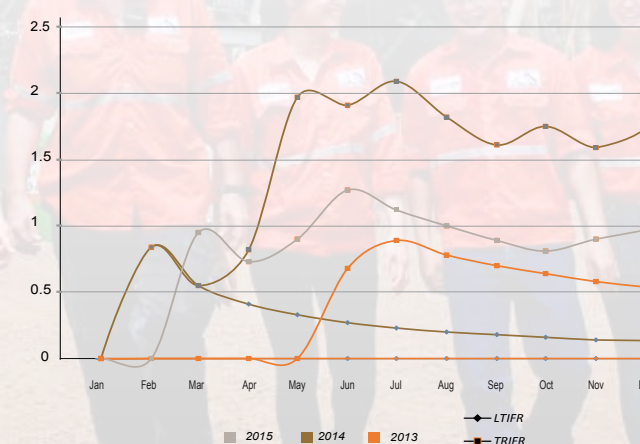
The Company has recorded all incidents/accidents affecting all Company employees and contractors, hence there is no separate record in this system. We believe in being responsible for the safety of every individual on-site; therefore safety monitoring is enforced for all activities in the plant, extending to construction works.

There are four kinds of injury that are reportable namely non-work related (NWR); LTI for serious cases, medical treatment injury (MTI) for medium cases and first aid injury (FAI) for minor cases. The reporting of NWR injuries provides an indication that the Company's approach to treating employees and contractors alike both during and after hours, is integral to our values and helps to ensure a healthy and effective workforce.

LTIFR – lost-time injury – is defined as an occurrence that result in a fatality, permanent disability or time lost from work of one day/shift or more. The frequency rate is determined by the number of occurrences per 1,000,000 hours worked.

TRIFR – total recordable injuries – include fatalities, lost time injuries and injuries that require restricted work activities or medical treatment. The frequency rate is determined by the number of occurrences per 1,000,000 hours worked.

#### YTD Injury Frequency Rate 2013-2015



#### Rolling Injury Frequency Rate 2013-2015





This year, the OcSafe incident electronic reporting system was designed and fully implemented across the site. The OcSafe system allows site-wide accidents and incidents to be reported by any employee or contractor through a computer system where data is inputted, risks rated and corrective actions assigned. The Management team effectively and regularly utilizes OcSafe to track incidents and ensure actions are closed out appropriately and in accordance with our standards.

The year delivered exceptional results, with the Company remaining fatality-free at the end of 2015 - a statistic we will diligently work to maintain as long as the project operates. We have had a breakthrough

record of no LTI, equating to 13,107, 065 hours/671 days. By the end of 2015, we had reached 163 days since the last TRI. The previous YTD record was 5,605,059 hours. For work-related injuries, there were three MTIs and 38 FAls recorded for 2015. This exceptional performance, measured based on OHSAS 18001 standards, can be attributed to the firm establishment of a prominent safety culture demonstrated by effective and safety behaved employees.

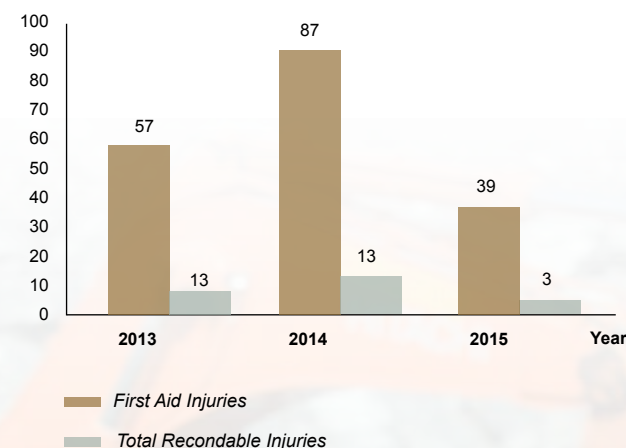
## Compliance

In order to ensure our systems are up-to-date and comply with the latest safety regulations, an inspection and audit program has been carefully implemented to ensure that government and other agencies such as DOIS (radiation), DOIT (chemical), DOLISA (labour and insurance), the fire department etc. are kept up-to-date and regular audits scheduled as well as to promote transparency and compliance. In 2015, the Company trained 217 employees in Legislative Safety Compliance.

## Communication

Effective safety communication is key in distributing valuable safety information to all employees and contractors as well as obtaining a high level of safety compliance. Throughout the year a total of 17 fundamental safety messages have been communicated to all employees and contractors. These safety alerts are readily available in softcopy and displayed on notice boards and the Company intranet site. The alerts cover the latest health notices, notifications of high-risk incidents that have occurred or general safety topics such as using a certified motorbike helmet when riding etc.

Injury statistic over years

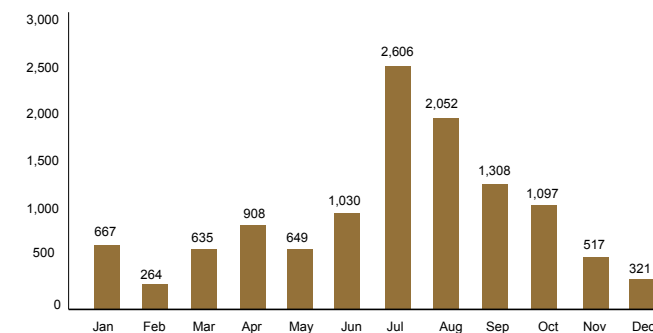


## Safety training

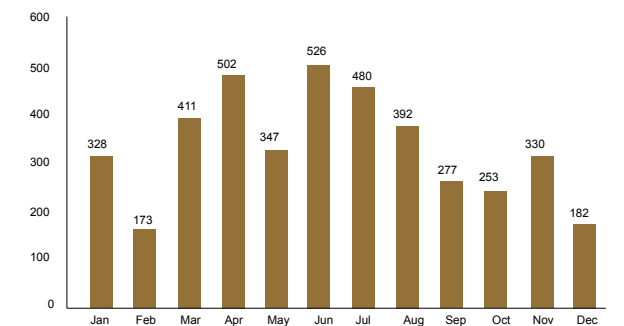
Safety continue to provide various safety related training courses such as hazardous chemicals, hazard identification and actions, risk training, management of change, emergency response training etc. Through our Masan Integrated Management System (MIMS) that comprises of system and performance standards and guidelines, are closely controlled and regularly updated.

We have continued to implement training for the Time Out to Take 5 job hazard analysis tool. The training teaches employees and contractors how to identify potential hazards associated with the task they are about to undertake, and how to avoid or minimise those hazards prior to commencing the task. This year there were 3,852 Take 5s performed.

Safety training hours - 2015



Number of Attendee - 2015



We provide an extensive safety training programme because we strongly believe in equipping employees with safety habits not only to be used at work but also to help them carry this mindset throughout daily activities. Once employees have received training, they are able to identify potential safety risks in their daily tasks. As the majority of our workers are from directly affected areas, we are looking to build on this culture and in turn spread it into our surrounding communities.

During the third quarter of 2015, 222 employees attended primary first-aid training courses that complied with regulations on occupational health and safety. The comprehensive course covered topics such as bleeding, fractures, unconsciousness, and teaching attendees

about proper methods to move victims in emergency situations and safely transfer them to medical clinics. The course was aimed at improving medical knowledge for employees and equipping them with primary first aid skills for use in response to an emergency.

The Health and Safety Department collaborates with the Thai Nguyen Fire Police to deliver fire drills during which employees are provided with training on response in cases of chemical spills, fire, rescue, evacuation and the need for first aid. The aim is to have clear plans on the actions to be taken. The plant also has its own fire department with specialised fire-fighting equipment so that any emergencies that occur, such as bush fires, can be dealt with appropriately.



First aid training for employees



The Fire and Emergency Response team



Occupational health

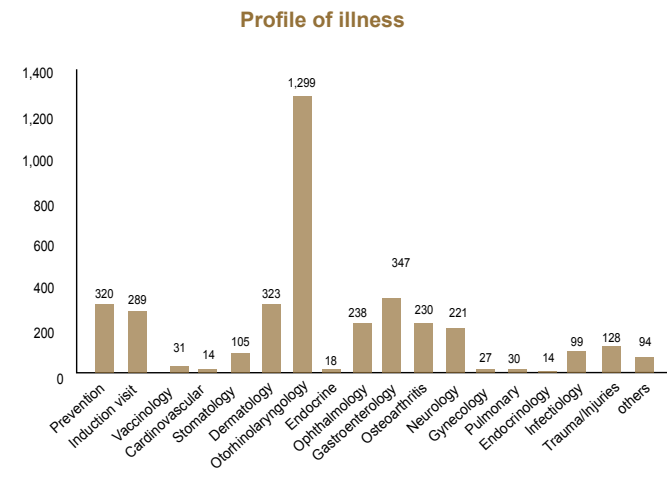
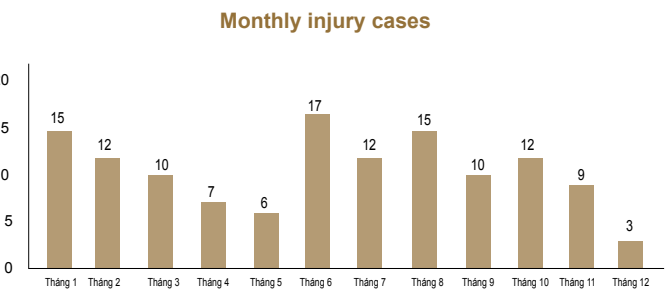
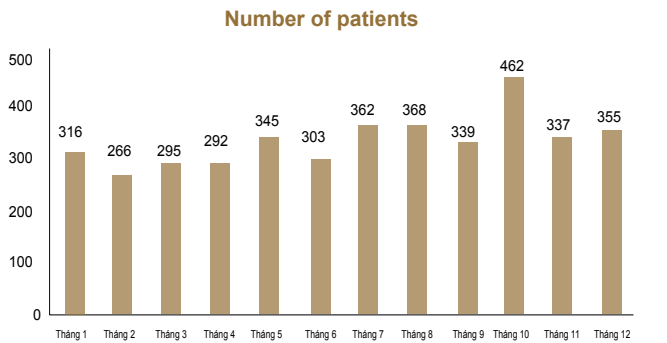
We aim to ensure that our workers are not exposed to occupational hazards that negatively affect their health, and we have a well-equipped, capable medical team available to support the health and wellbeing of our workers and the broader community (including in emergency situations).

Our capability and facility

We currently have 11 medical staff members, comprising of three doctors, who hold both General Practitioner and Specialist certificates, six nurses cum ambulance drivers, one administrator cum pharmacist and one occupational health professional.

We run a well-equipped and fully staffed medical clinic that provides 24-hour support with more than 90 pieces of medical equipment and a range of medications on site. In 2015, the clinic saw 4,040 patients for complaints related to a variety of issues, ranging from preventative consultations to the treatment of minor injuries and involvement in community traumas.

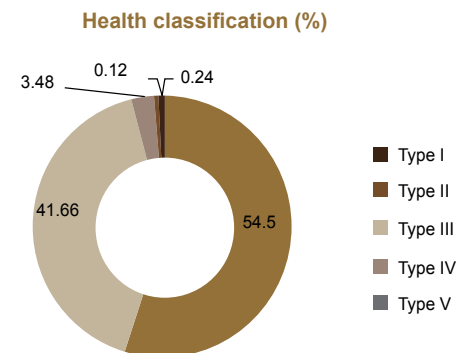
This year we have enjoyed a lower number of injury cases at 128, compared to 135 in 2014. This is attributed to stricter safety codes and monitoring procedures. Our focus for the upcoming year is to continue strict monitoring and provide further training to minimise the number of injury cases.



Medical care at the Company clinic

Health care training

Company has arranged the annual health checks for all employees that help to classify workers into grades of health, ranging from very good (I) to poor (V), and this determines the type of work that worker can perform. The majority of the employees were classified in the top three categories, signifying good to reasonable health. Contractors' workers are also assessed by the contractors' medical staff prior to joining the operations.



The medical team runs regular health monitoring to identify and manage potential occupational health risks and provide recommendations. The medical team also conducts quarterly monitoring of the working environment in potentially high-risk areas (such as the processing plant and APT plant). The monitoring assesses potential health risks relating to noise, dust, air pollution, water, food hygiene and safety, and where poor results are returned, corrective measures are taken.

The Company has issued a decision regulated that for employees working under conditions with strict safety requirements, a health classification has to be assigned to them and health check conducted twice a year. Besides that, the Company conducts periodical measurements of the working conditions to ensure that they are at an accepted level as per the standard regulations and provide a safe working environment. The baseline survey is conducted with employees working in high-risk areas and the results are then analysed for recommendations. However there has been no case reported regarding occupational disease to date.

Health care training

Employees are provided training on various health issues with reference to American Heart Association guidelines during training courses. This year we have provided a number of courses with topics such as family planning and the prevention of sexually transmitted disease. A total of 176 employees from the sub-contractor Thinh Cuong and the Mining & Geology Department were given training on fatigue management, and there are currently plans to extend the programme to other departments. Our health awareness and health promotion programmes have continued to be extended to inform workers of potential illnesses and their symptoms.

We have sent two of our doctors to Singapore to gain certified medical degrees such as BLS, ACLS, and ITLS



Periodic statistical measurement of the working environment conditions

A number of locations are subjected to weekly and monthly food hygiene and safety inspections, including canteens, restaurants, kitchens, hotels and guest-houses operated by the Company.

certificates. A team consisting of a doctor, an Occupational Health and a nurse received external training on occupational diseases and working environment monitoring at the National Institute of Occupational and Environmental Health for three months. All our doctors and nurses were sent to a Hospital to be enrolled in the "Emergency trauma/injury care program" to upgrade and align their skills to our occupational hazards. Medical staff also revise training monthly on medical equipment practice and medical skills to constantly be updated on new medical information and cement their existing skills.



First aid training for local health workers



Working with Thai Nguyen provincial partner on medical training



Partnership in public healthcare

The area around Dai Tu District and the vicinity of the mine site have been plagued with traffic accidents, many severe. We have set up an emergency team as the first point of contact for accidents both in and outside the operation site. In the case of any accident our team can be the first responders and provide critical first aid treatment to the victims at the scene before necessary medical help arrives.

In line with our commitment to the wellbeing of surrounding communities, the Health and Safety Department works closely with the Community Relations Depart-

ment to draw health care workers from local communities, offer them training courses and also provide free health checks and medicine for vulnerable groups. A total of 102 health care workers from surrounding communities have attended four of our two-day first aid training courses. The purpose is to share updated medical practice and equip every community with a competent healthcare worker who can effectively respond to emergency situations.



First aid training for local health workers



Free medical examination for the poor in Dai Tu district

Focus 2016 – Health and Safety Objectives

- Return to zero LTIFR, achieve a TRIFR of <0.5 by end of 2016
- Achieve 18 million man hours LTI free
- Conduct approx. 530 safe vehicle checks, 5,000 blood alcohol tests, 3,500BAC test and 180 drug tests to ensure fitness for work
- Establish and roll out Safety Health Environment and Community program
- Train selected staff in root cause analysis and risk management
- Roll out Management of Change safety behaviour program
- Continue to provide medical training to both Masan Resources employees and to medical staff through externally provided medical courses
- Upgrade medical testing equipment to strengthen diagnostic capacity and perform basic medical surveillance onsite
- Extend health promotion programmes and provide more coverage on occupational health and the prevention of occupational-related diseases
- Issue a medical emergency pocket book for all staff
- Design a treatment procedure for chemical exposure



MANAGING THE ENVIRONMENTAL IMPACT

- Water and wastewater
- Material and waste management
- Energy and greenhouse gas emissions

We believe the success of our mining project is governed heavily by our environmental track record. Therefore environmental management plays a key role and is equal in priority to all operational activities. Since the inception of the project, we have developed and maintained management systems to ensure the minimisation of adverse impacts and ensure responsible stewardship. Environmental impacts have been identified and managed through various management processes including monitoring, setting goals, tracking performance, and running training programmes not only raise awareness within the Company but also to reach out to the stakeholders through PCDP.

As we have moved further into the stable operation part of the project, we have continuously sought to improve our environmental performance. Due to the rising concerns of local communities, we have ramped up our environmental protection expenditure, mainly directed at building a WWTP. We have substantially enhanced our environmental audit programme to focus on compliance with environmental regulatory requirements by effectively implementing a management programme that has been approved by MONRE for the Environmental Impact Assessment (EIA) report.

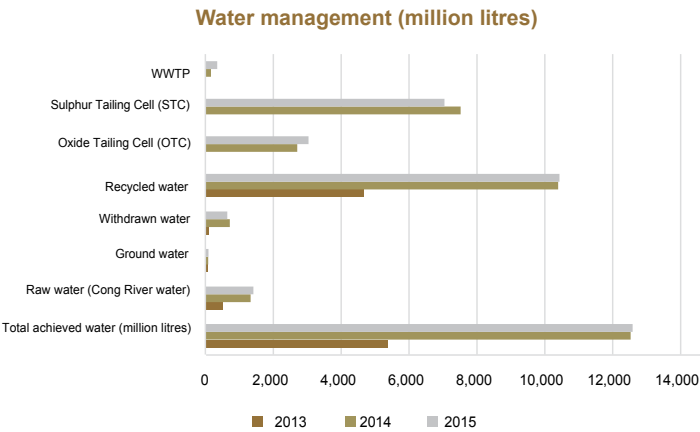


WATER AND WASTEWATER

Water management

The environmental sustainability of our operations relies on our ability to obtain the appropriate quality and quantity of water, and to use this resource responsibly. We use large quantities of water at various stages in our operations, thus the stress on our water systems will invariably add to the cost of business. Therefore, our priority going forward is to reduce our extraction from the Cong River, increase reliance on recycled water, and improve our overall water management system.

The need for water extraction from different sources and water management plays an important role in mineral processing. There are currently four sources from which we obtain water for the operation: surface water (mainly from the Cong River), ground water, water withdrawal and recycled water. In our operations, we strictly monitor our water usage across all sources of supply and have set a clear target to reduce the volume of water extraction and increase the use of recycled water. Despite the increase in our production levels, the total amount of water extracted in 2015 was 12,586 million litres, which is only marginally different when compared to 2014, while the total volume of recycled water significantly increased to 10,433 million litres. We aim to stabilise and, if possible, reduce the volume consumed through enhanced efficiency in water management programs. We hold regular meetings where opportunities for improving water use efficiency are identified for implementation.



Water resource	2013	2014	2015
Total achieved water (million litres)	5,383	12,528	12,586
Raw water (Cong River water)	516	1,332	1,416
Ground water	87	84	93
Withdrawn water	114	718	644
Recycled water	4,666	10,394	10,433
Oxide Tailing Cell (OTC)	-	2,708	3,040
Sulphur Tailing Cell (STC)	-	7,521	7,043
WWTP	-	165	350



Surface water

Our processing plant's raw water demand is principally met by extraction from the Cong River, with a licensed capacity of 4,800 m<sup>3</sup> /day. In compliance with the regulations, we extract water through a pump station where the total volume makes up approximately 10 – 11% of our raw water demand.

The total surface water extraction amount was 1,416 million litres in 2015, against 1,332 million litres in 2014. The slight increase reflects the both the enhanced production capacity of our operation and improvements in operational efficiency.

Ground water

Our groundwater is extracted from two licensed bore-holes, NP-P15 and NP-TC. We use submersible pumps to extract groundwater. The licensed capacity is 292 m3/day, enabling us to extract 58 million litres and 35 million litres of water at NP-P15 and NP-TC, respectively. The total volume, 93 million litres, increased compared to 2014, reflecting our contractors' increased need for domestic water.

The withdrawal of water and its significant impact

The licensed withdrawn water extraction at TW01A through submersible pumps contributed about 5% to total achieved water in 2015. The amount of extraction for the year 2015 was in line with the licensed capacity of 2,900 m<sup>3</sup> /day.

The amount of water at TW01A has decreased due to the lowering of the pit development from 2012 to 2015. Based on monitoring data from 2006 up to 2015 on the ground water level, conducted by the internal ground water level monitoring network, there are no signs of a ground water level decrease in surrounding areas. The fluctuation of the ground water level is significantly influenced by the seasons, hence our monitoring programme has been continued to better understand the movements in the water table and how it is replenished in order to manage the adverse impacts of water withdrawal on the community around the pit.

Water recycling

Water extracted from the river and catchments has been recycled daily. This helps us to reduce the impacts on our stakeholders and brings us significant economic and environmental benefits. We managed to recycle 10,433 million litres in the year 2015, against 10,394 million litres in 2014, meaning that 83% of the total water consumed is reused for our plant. This clearly demonstrates the effectiveness of our water management. Despite the unknown rainfall contribution to the rate of water reuse, this shows that we are committed to continuously reducing the extraction of water from external water sources by increasing the amount of internal water recycling, as an example of waste management in OTC and STC.



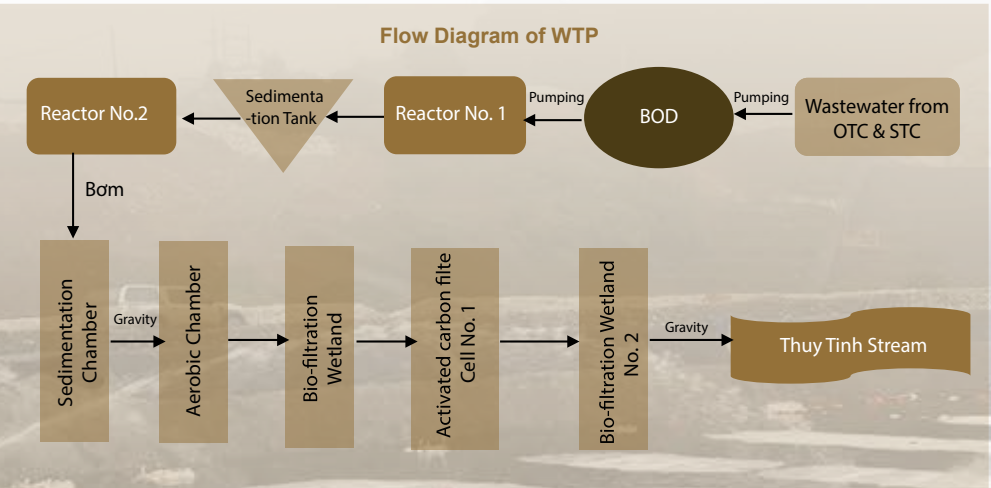
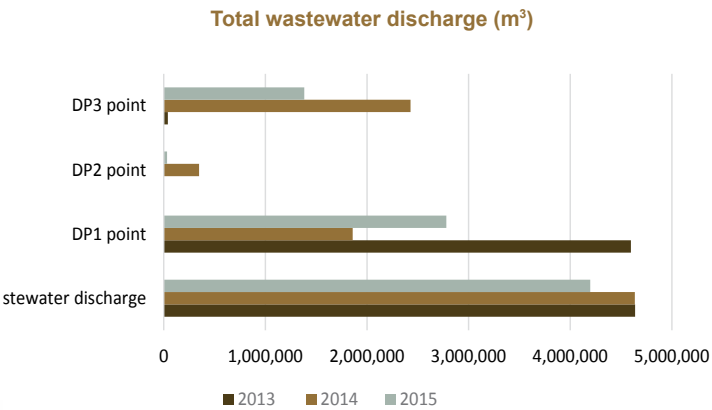


Effluents and waste

In previous years, we faced challenges and difficulties to prove that our discharge met the standard when being discharged into receiving sources (the Thuy Tinh and Cat stream). In response to community concerns about the quality of our water discharge, mainly from the OTC, we have engaged a specialist water treatment company to assist us in the construction of our wastewater treatment facility. The WWTP comprises bio-chemical components and charcoal cartridges for water purification, which is accepted as the most appropriate method of disposal. Discharge effluent meets the legislative requirements as stipulated in Discharge Permit No.927/GP-BT-NMT issued by the MONRE. We have set water management as a priority for 2015 and for the next years.

Regular monitoring and inspection is undertaken both by the Company and by local government to verify operational performance and manage potential impacts on the surrounding environment.

Effluent and waste	2013	2014	2015
Total wastewater discharge (m³)	4,637,420	4,635,416	4,196,347
Discharge point DP1	4,596,958	1,859,284	2,781,106
Discharge point DP2	-	348,400	32,487
Discharge point DP3	40,462	2,427,732	1,382,754



Receiving source

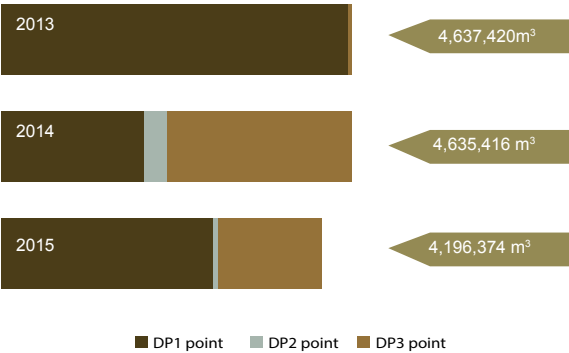
We have three licensed discharge points, located in the upper Thuy Tinh stream and the Cat stream in the Ha Thuong Commune, and Phuc Linh Commune respectively. Treated wastewater flows by gravity through to the licenced discharge points and then on into receiving sources. Water in downstream receiving sources is used for irrigation and agricultural purposes. The wastewater discharge flow is measured daily by flow gauging stations.

Discharge quality and quantity

Through our efforts to increase water recycling at the processing plant, the overall quantity of wastewater discharged has decreased. Moving forward, the WWTP complex will commence operation and reach stable operation in 2016 and will provide better control over the quantity and quality of the wastewater we release downstream to mitigate any negative effects.

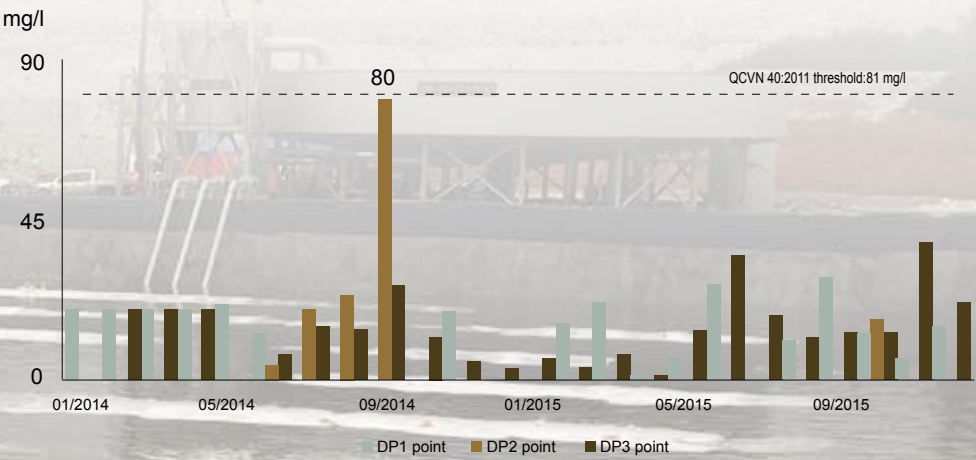
Consistent with our corporate values we have also shared information on discharge data, the WWTP complex and monthly reporting with the authorities and local stakeholders. We have also hosted a site visit to the Nui Phao mine for leaders and representatives of the Phuc Linh Commune in June and the Ha Thuong's People Council in November to observe our wastewater discharge management system and the activities we undertake to monitor and control discharge flows and quality in order to mitigate water pollution from the operation.

Wastewater discharge



Waste water discharge observation

TSS concentration in wastewater





MATERIALS AND WASTE MANAGEMENT

The Company recognises its responsibility to ensure that the negative impact of the mining project on the environment is mitigated. With the known effects of waste materials generated from the mine, an appropriate waste management plan has been implemented.

The waste management plan also addresses the management of wastes designated for special handling, including hazardous waste and sewage produced by emergency response, as well as the minimisation of waste through recycling programs.

The Nui Phao mine is a polymetallic mine typical of tungsten-fluorite skarn deposits; mineable metals include tungsten, copper, bismuth and fluorite. Considerable amounts of soil and waste rock materials have to be excavated in order to recover these commercial metals. Nui Phao waste is known to have the potential for high concentrations of arsenic and sulphur; hence, proper waste management is required.

An estimated total waste rock volume of 32,000,000 cubic metres is expected to be generated until the end of the mining project. Waste materials have different classifications based on their chemical properties. A separate waste dump for each classification has been designed to mitigate the risk of creating unwanted effects on the environment, particularly of waste materials having negative environmental impacts.

Materials used	2013	2014	2015
Renewable materials used (m3)	4,548,698	4,548,698	2,346,040
Clean waste rock (TSF wall-dam construction)	2,127,551	2,127,551	1,942,208
Soil (TSF dam construction)	2,230,538	2,230,538	302,515
Others (civil activities)	190,609	190,609	101,317
Non-renewable materials used (m3)	1,245,979	1,245,979	3,817,755
Waste dump	141,711	141,711	1,203,342
High sulphur waste rock	1,104,268	1,104,268	2,614,414
High arsenic waste rock	n/a	n/a	921

Renewable materials used

Clean waste rock and soil material that does not contain high amounts of either sulphur or arsenic is considered for re-use purposes, including TSF wall-dam construction and other civil projects (road repairs and community support). In 2015, we recycled 2,346,040 m3 of clean waste rock, soil and other materials for TSF wall-dam construction and other projects (compared with 4,548,698 m<sup>3</sup> in 2014). The decrease in recycled amounts reflects a decrease in the amount required for dam construction.



Waste rock transport monitoring

Non-renewable materials used

As a result of exploration drilling and soil stripping, different types of waste materials that can be found in the Nui Phao mine have been identified. Three major classifications have been established, based on the chemical properties of the materials. The three major categories are: (i) high-sulphur waste; (ii) high-arsenic waste; and (iii) waste rock.

Waste management

In 2015, we disposed of 567 tonnes of domestic waste to landfill and 430.5 tonnes of hazardous waste, against 661.5 tonnes of domestic waste and 623.9 tonnes of hazardous waste in 2014. The decrease in the waste quantity released is the result of classification/segregation at source, recycling and management improvements in 2015; we wish to reduce this amount further in the coming years. Our domestic waste is transported to landfill by a local contractor. Our hazardous waste is transported to the appropriate disposal facility by a licensed contractor.

In the year 2015, we released and isolated 3,817,777 m<sup>3</sup> of non-renewable material (compared with 1,245,979 m<sup>3</sup> in 2014). The increased number indicates the level of pit development.

(i) Waste high sulphur

Waste materials which contain high amounts or concentrations of sulphur have been classified as waste high sulphur (WHS). All waste materials that contain >0.3% sulphur are considered as waste high sulphur and will be dumped into the sulphide tailings cell (STC). In the year 2015, we released and isolated 2,614,414 m<sup>3</sup> in STC (compared with 1,104,268 m<sup>3</sup> in 2014).

(ii) Waste high arsenic

All waste materials that contain >1,000 parts per million of arsenic are considered waste high arsenic (WHA). Arsenic-rich waste soil or rock will be isolated and encapsulated in the waste dumping area (North Waste Dump). In the year 2015, we released and isolated 921 m<sup>3</sup> in the arsenic dumping area (compared with no arsenic released in 2014).

(iii) Waste rock

Waste material which does not contain high amounts of either sulphur or arsenic is considered clean waste (WHT). The major dumping area for waste rock materials is in the northern portion of the pit, and a smaller clean waste dump at the Southern will also be developed.

	2014	2015
Total waste (tonnes)	1,285.4	997.5
Domestic waste	661.5	567
Hazardous waste	623.9	430.5



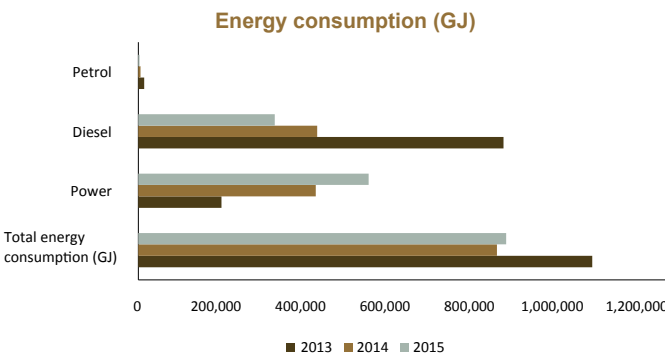
ENERGY AND GREENHOUSE GAS EMISSIONS

We are aware of how critical of energy management is to increasing operational efficiency, and also of the relationship between energy demands and GHG emissions and climate change issues. We measure our energy consumption and have developed an action plan for reducing energy use and CO<sub>2</sub> emissions.

Our power supply comes primarily from the national grid, which is generated from a wide range of fuels such as coal, fuel oil, natural gas and renewable energy, including hydroelectric power stations. We also use diesel and

petrol to power back-up generators and run our vehicle and equipment. We strive for low carbon emissions by using a proportion of renewable energy.

In 2015, our total energy consumption was 871,434GJ (compared with 849,490GJ in 2014). The increase in consumption reflects the progress of the project, the adjustment and build-up of the supplementary production lines as well as the level of pit development, construction and transportation activities on site.



Energy efficiency program

As a significant consumer of electricity, Masan Resources is committed to reducing its energy consumption and being as efficient with its energy use as possible.

We continuously monitor and analyse of energy source of consumption to identify opportunities for improvement. To reduce our energy consumption in 2015, we have implemented number of technical solutions and initiatives as following:

- Operated the crushing plant during off-peak hours to reduce both peak load on the power generation network and overall power consumed by our operation. This directly contributed towards a reduction in GHG emissions associated with generating power during peak hours.
- Optimised process plant performance through the implementation of automated process control loops utilising our state-of-the-art process control network.
- Commissioned bulk power factor correction units to help significantly reduce wasted power which we achieved a site power factor of 0.95 pf, which has been raised to 0.90 pf above the regulatory level. Though during the wet season in 2015 there was damage to our high voltage equipment due to lightning, rendering our power factor correction equipment inoperative.
- Rationalised and replaced high pressure sodium light fittings with more energy-efficient, better-quality LED light fittings.

- Installed automatic controls for the plant lighting which lighting only being utilised as required to meet legislative requirements for workplace safety. The lighting control are ensure leaving the manual mode after the maintenance are completed.
- Installed solar panel lighting at the magazine warehouse, a renewable free energy source reducing reliance on fossil fuel power generation. This system still in operation.
- Used high-efficiency electrical motors and variable speed drive pumps throughout the plant as well as ensuring electrical equipment is maintained to a high standard. A number of drives have been converted to the variable speed driver type for better efficiency and control.
- Converted flotation cell FC116 from a Metso to an Outotec type, with a dramatic drop in power requirements from 110kw to 55kw (52% of drive capacity). We plan to perform similar conversions throughout 2016 which will help to improve the performance of process downstream.
- Achieved much better performance in the tungsten dryer, with fuel burn much cleaner and more efficient in the last quarter of 2015. Better process feed along with improvements in the equipment's instrumentation setup combined to achieve this.

GHG emissions

GHG emissions (tons of CO <sub>2</sub> )	2013	2014	2015
Total GHG emissions	95,302	68,619	109,618
Direct GHG emissions (SCOPE 1)	64,362	31,436	23,873
Gasoline	979	371	199
Diesel	63,383	31,064	23,674
Indirect GHG emissions (SCOPE 2)	30,940	37,183	85,774



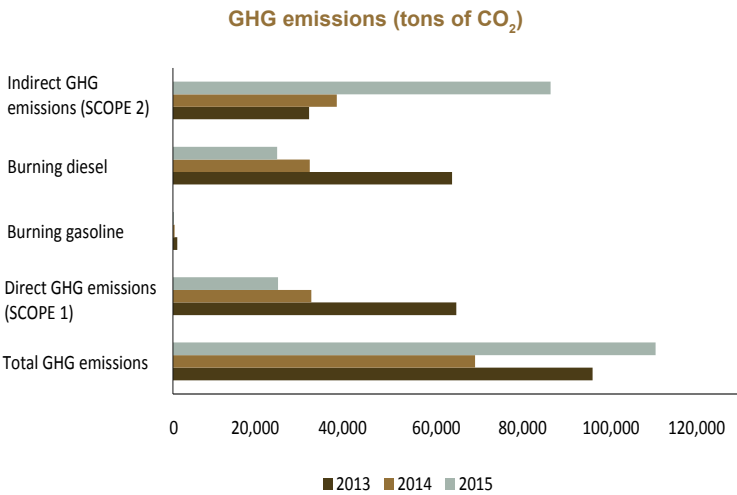
Ambient air measurement

Direct GHG emissions (SCOPE 1)

Our direct GHG emissions are generated by gasoline and diesel consumed to run our vehicles, equipment and back-up generators. In 2015, we emitted 21,723 tonnes of CO<sub>2</sub> against 31,436 tonnes of CO<sub>2</sub> in 2014. The decrease can be attributed to the lower use of fuel due to the level of pit development and construction and transportation activities on site.

Indirect GHG emissions (SCOPE 2)

We consumed power from the national power grid through our 110 kV sub-station. In 2015, we consumed 151,572 MWh of electricity against 116,800 MWh in 2014. This comprised of 76,679 tonnes of indirect CO<sub>2</sub> emissions via coal- and hydroelectricity-fired power stations (against 37,183 tonnes in 2014). The increase in power consumption reflects the progress of the project through the adjustment and building of the supplementary production lines.



Compliance

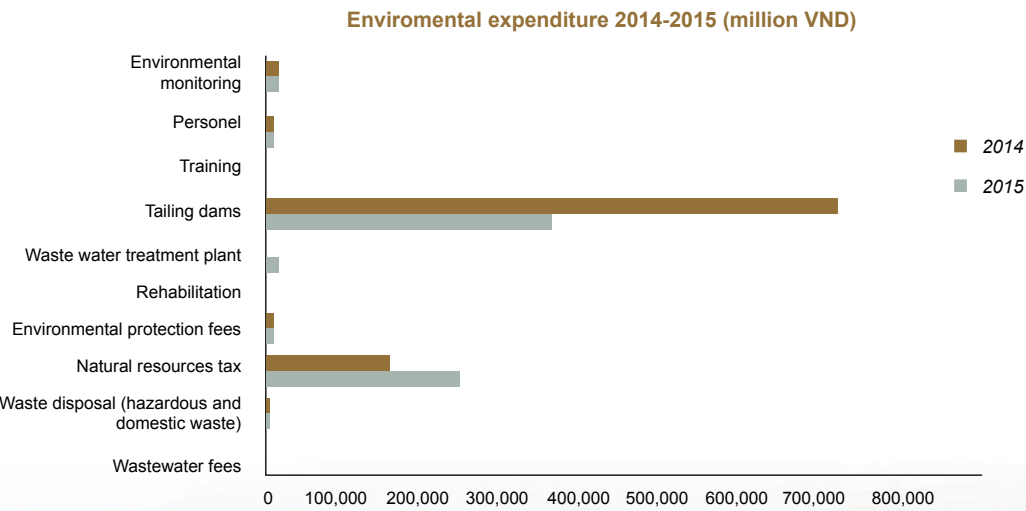
In 2015, we received nine official inspections from MONRE and the Thai Nguyen Delegation Team (DONRE, DOIT, Dai Tu DPC and Environmental Police) interested in mining, processing, explosive material and environmental protection. The delegates assessed Masan Resources' compliance with environmental laws and regulations by conducting field inspections against its approval documents, legal documents and permits. The delegation determined that the operation fully complied with all applicable laws and regulations.

Compliance assessment	2013	2014	2015
Total number of compliance inspection	6	8	9
Central Government (MONRE)	1	1	1
Thai Nguyen Province (DONRE, the District People's Committee (DPC) etc)	5	7	8



Overall environmental expenditure

Environmental protection expenditure (VND million)	2014	2015
Environmental monitoring	6,778	8,539
Wastewater fees	501	338
Waste disposal (hazardous and domestic waste)	3,162	3,531
Natural resources tax	166,587	241,244
Environmental protection fees	4,861	5,352
Rehabilitation	1,836	621
Wastewater treatment plant	-	25,030
Tailings dams	712,640	358,512
Training	32	345
Personnel	4,956	5,473
Total expenditure (VND million)	903,118	647,228



CREATING  
SHARED VALUE FOR  
LOCAL COMMUNITY

- Resettlement and compensation
- Public consultation and information disclosure
- Community development
- Economic restoration

The communities around the site and their support play a crucial role in ensuring the sustainable development of the Company. We gain an insight into the needs and expectations of the community by maintaining frequent communication and transparent information disclosure with directly or indirectly affected communities. It is important for us to gain public support, establish our presence within a community and maximise its economic opportunities. Our top priority is to ensure the wellbeing and economic stability of the local community by continuously cementing relationships, strengthening partnerships and operating a socially responsible business.

In 2015, we continued our range of community engagement activities including community development programmes and economic rehabilitation programmes. Our public consultation and information disclosure programme is the main channel that connects us to our host communities and their concerns. Based on the assessment of local communities’ needs, we have designed programmes and continuously adapted them to shifting socio-economic needs. Along with resettlement of communities – a core part of our work due to the nature of the Company’s business – our efforts to support local community development fall into three main areas:

- Resettlement Action Plan and economic restoration
- Community development Plan (CDP)
- Public consultation and Dissemination Plan (PCDP)

These important plans have been accepted by the government since the very beginning of project development (2005-2008).

Focus 2016 – Environment Management

- Complete the commissioning of intensive Waste-water treatment plant to get better management in waste-water discharge quality and quantity.
- Commence the energy crop pilot with CEPEP (Germany Organization) on-site for 03 years to determine successful rehabilitation approaches in the future rehabilitation activities
- Continue developing on-site rehabilitation nursery and complete the rehabilitation activities to earth-work areas completed.
- Continue with participatory monitoring programs with representatives by Stakeholders and community as means of building trust and being transparent through information sharing of monitoring results with local surrounding communities.
- Keep on the compliance with environmental laws and regulations of reporting and governance auditing.



RESETTLEMENT AND COMPENSATION

Masan Resources has made critical commitments to and takes steps to ensure the quality of life, satisfaction and economic stability of the community. Resettlement activities have been conducted in line with World Bank guidance on involuntary resettlement.

As the project continues to develop and matures over the lifespan of 20 years, it will affect approximately 1,925 households. In its development stage, the Nui Phao mining project directly affected four project communes and two host communes resulting in the displacement of 1,370 people. Of these, around 953 households required physical resettlement either to new premises or to one of the existing resettlement sites: Nam Song Cong, Hung Son 3 and Hung Son 2. The remaining households were affected as a result of the loss of non-residential land and/or assets on land but were not physically displaced. Despite our efforts to minimise land acquisition, approximately 3,500 people have inevitably been economically displaced with the loss of farm-based livelihoods and obstructed access to resources (land, water and forests) due to the construction or operation of the mine and its associated facilities.

The Company has set a goal to resettle the community in a fashion that benefits both parties, i.e. with favourable compensation for people and minimal disruption to our operation. In line with government policies, households affected by land acquisition are provided with accommodation assistance for at least four months and income restoration for a minimum of 12 months that to them plan, build their new homes and restore their livelihoods.

However, in the Nui Phao project, the adverse impacts have been addressed through a number of programs including rehabilitation planning, employment opportunities at the mine and economic restoration programs.

The Company has built two relocation sites (Nam Song Cong and Hung Son 3) to compensate the displaced people. The facilities include basic services, such as water supply, telephone lines, electricity infrastructure, access roads, water reticulation and sewage and waste treatment. As a result of consultation with the PAPs, the Company has also built infrastructure for social development such as health care facilities, schools, community halls, a catholic church, and a Cao Lan temple, all of which are in operation. In 2015, we met the needs of more than 100 relocated households by constructing a third resettlement site, Dong Bong, where a second catholic church is being built.



The new Cathedral in Nam Song Cong resettlement area



The under-construction church in Dong Bong resettlement area

PUBLIC CONSULTATION AND INFORMATION DISCLOSURE PROGRAMME

PCDP is designed to collect and disseminate information to people interested in and/or affected by the project. It is intended to provide real opportunities for stakeholders to participate actively in the development of our Company's operations. It establishes the foundation on which Masan Resources conducts business with the

community and the way complaints and grievances can be managed. PCDP connects various departments and ensures transparency in our activities as to how they affect the health, safety and environmental conditions of the area.

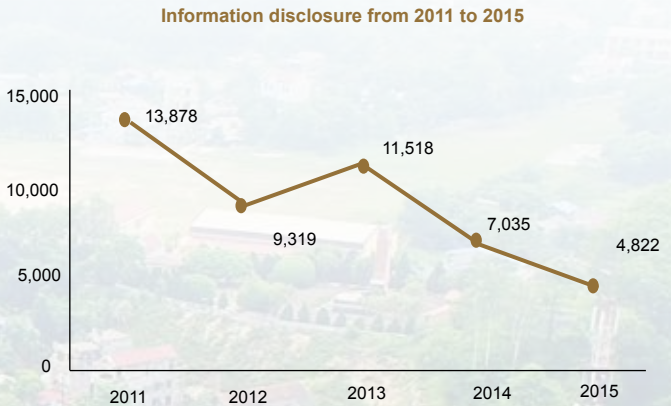
Information disclosure channels

To fully encompass and reach our diversified communities, we have chosen a variety of channels to disseminate information, from newsletters, a loudspeaker system, and information corners in the communities, to direct community meetings.

Locals can be updated on our activities through information disclosure items released by our community liaison department or visiting information centres.



Information corner in the local village



The published Newsletters in 2015

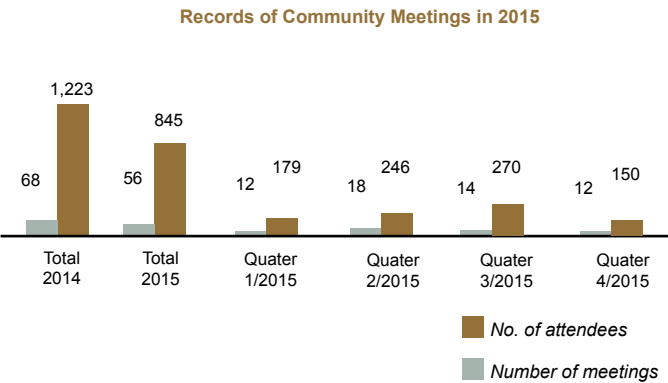


Open dialogue



Weekly meeting with communities

Community meetings allow our stakeholders to voice their opinions in a comfortable, non-threatening and constructive manner. We view this as vital to facilitate two-way communication, whereby information is openly exchanged to resolve complaints and enable negotia-



tions. Major issues on the agenda this year focused on environmental mitigation measures and monitoring results (dust, noise, water quality, etc.) and issues regarding compensation and resettlement plans for households in the school road area.

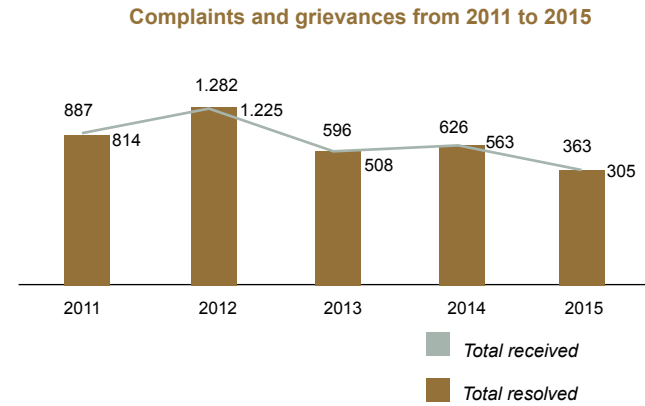
Complaint mechanism

Masan Resources adopted its complaints and grievances mechanism in the early stage of its operations, and this has been set as a priority for improvement over recent years. By maintaining this mechanism, the Company demonstrates its ongoing commitment to its policy on complaint and grievance settlement as a central part of its sustainability strategy.

In 2015, the number of complaints and grievances decreased substantially, which can be attributed to PCDP efforts to initiate and sustain community meetings.

In 2015, we received a total of 84 environmental grievances. Of those raised, 79 complaints i.e. 94% were resolved in 2015 (compared with 100% resolved for 286 complaints in 2014), and five complaints were outstanding. In the case of grievances related to ground water seepage a third party (appointed by DoNRE) was involved in ground water sampling and analysis to determine a resolution.

The complaints and grievances resolution mechanism, in combination with weekly meetings, has proved to be very effective in addressing community concerns. The number of environmental grievances has decreased significantly when compared with 2014 (down to 70%). However, some cases were not resolved in 2015 due to bottlenecks in government administrative procedures. We have set targets for 2016 to continue to apply ad-

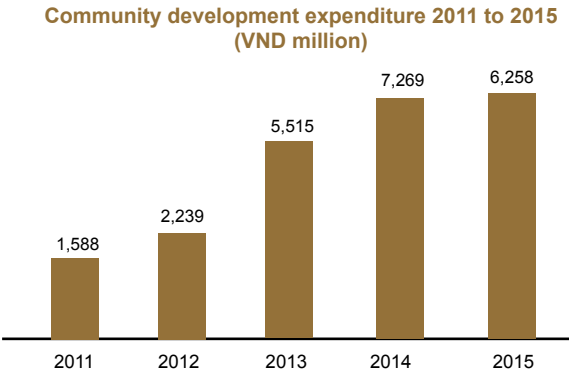
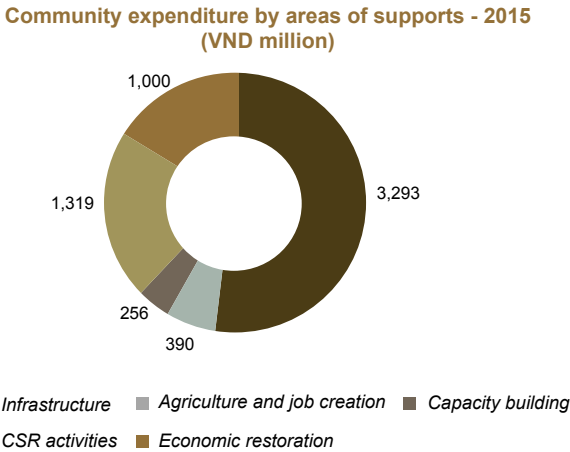


	2014	2015
Total grievance about environmental impacts	286	84
Resolved	286	79
Remaining	0	5

vanced technology to improve the quality of the natural environment, mitigate the impact to the local community as well as minimize environmental grievance.

COMMUNITY DEVELOPMENT

Masan Resources' community development programmes focus on the economic development of the surrounding communities by allocating resources to three main aspects: infrastructure, capacity-building and agricultural extension services. In order to mobilise more resources and to sustain the project's effectiveness, we develop public-private partnerships (PPP) by actively cooperating with governments, technical partners and business partners at different levels in our project implementation. Some typical partners include the Dai Tu District People's Committee, Bank of Social Policies of Dai Tu, the Vocational Training Centre, the Dai Tu Department of Economy and Infrastructure, etc.



Infrastructure development

In 2015, infrastructure continued to be the most prominent area of concern, as solutions in this area demand the biggest resources from the community as well as the Company. In total, VND 3,293 million were invested in the construction of seven infrastructure works in affected communes, including a road, sewerage systems, a dam and culture houses.



The Nui Phao Company and H.C.Starck Joint Venture co-supported the concrete construction of 370m of Suoi Bat road in Hung Son town with 473 million VND



Company has funded VND 511 million for Tan Linh Commune to construct 1.8 km aggregate road from the intersection at Hamlet 4 leading to Hamlet 1 and Hamlet 2



Capacity building

Parallel with infrastructure support, we focus on capacity building for local communities through the perspective of “sharing our resources and value with the community for mutual development”. This means we are proud of our expertise and our culture and we believe that sharing them with communities is the right thing to do.

For instance, in early 2015, 100% of Masan Resources employees were trained with first aid knowledge and skills by the Company’s health clinic staff. Later on, the same training courses were conducted for 102 community and school health workers in four communes: Ha Thuong, Hung Son, Tan Linh and Phuc Linh. The training was highly appreciated by the participants and district health department for the intensive knowledge and useful and practicable skills gained, and the professional training approach.



First aiders training courses were provided for 102 communal and school health workers from Ha Thuong, Hung Son, Tan Linh and Cat Ne communities

By collaborating with the Women’s Union, we provide microfinance for women and offer study tours for borrowers to learn about women-led livelihood models in the neighbouring districts. Up to 40 women from low-income households have been able to access small loans (maximum VND 5 million per person) to invest in their income-generation activities.



VietGAP tea model in hamlet 3, Hung Son town

Agricultural extension services

With an aim of promoting the independent and sustainable development of the communities, Masan Resources continued expanding the existing agricultural extension services with tea and vegetables as the key products to leverage the competitive advantage of local agriculture. We have set a policy to connect to and mobilise support from different organisations to help households obtain VietGAP certification. The programme has yielded promising results, i.e. 114 households with 31 ha of VietGAP tea have successfully completed the programme; 40 households have been allowed by the provincial Farmers Union to use the Thai Nguyen tea label; and a pilot VietGAP vegetable model comprised of 19 households with 2.1 ha of vegetable-growing land in Cau Thanh Hamlet has been certified to VietGAP standards.

With five training courses and a number of sessions delivered, participants have received direct guidance from specialists at the Thai Nguyen Provincial Cen-



VietGAP vegetable model in hamlet 6, Hung Son town

tre for inspection of commodity quality, and 19 vegetable growers and 30 tea grower family businesses have been granted certificates of safe vegetable and tea production in accordance with VietGAP standards.

ECONOMIC RESTORATION

At Masan Resources, we believe it is vital to restore the earning capacity of the local people who are physically and economically displaced by our projects. This is even more critical as many resettled households depend solely on their land to earn income. Economic restoration activities are designed to support people’s move from their land to urban locations where land for income generation is no longer available.

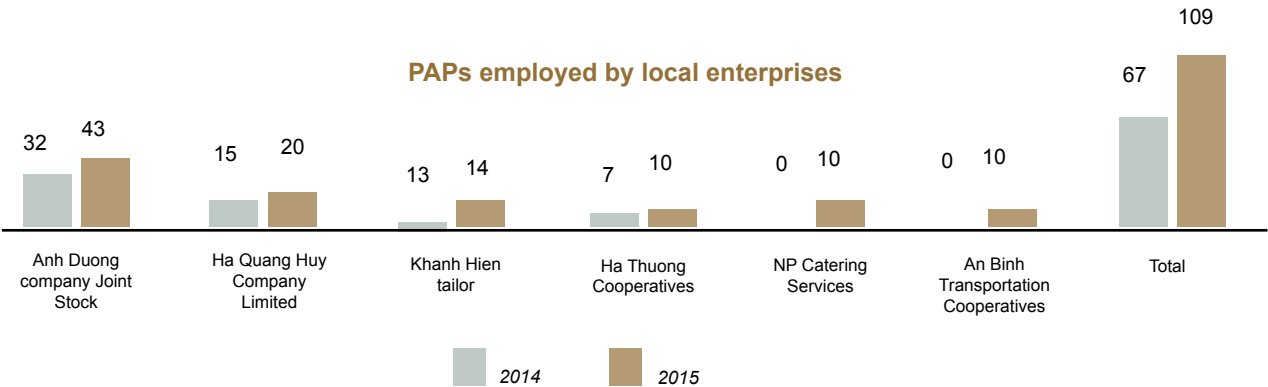
Employment

As part of the Company’s strategy to ensure the economic viability of PAPs, we prioritise them in our recruitment policy. Employment benefit PAPs for the life of the project, estimated at 20 years. However, our economic restoration programmes should also consider how PAPs will continue earning a living after mining projects end. Therefore we have set up other

programs to induce a positive multiplier effect in the local labour market and reduce dependency on Nui Phao for employment.

Local outsourcing

We continue to support four local enterprises to enable them to create stable jobs for the local community. Though the companies have had to cut back their goods consumption due to unfavourable markets, all four have had impressive revenue growth: Anh Duong 105%; Ha Quang Huy 17%; Khanh Hien 24%; and Ha Thuong Co-op 245%. They also developed more partnerships in 2015 and are expected to employ more PAPs in the future. Additionally, in late 2015, we supported two more outsource supply models (the catering service and the An Binh transportation cooperative), creating jobs for 22 more PAPs. In general, the year 2015 witnessed positive growth and promised the viability of the enterprises even at the mine closure stage.



Sustaining business

The Anh Duong joint stock company, established as part of the economic restoration programme, has become the ore bag supplier for a number of influential mining companies in Vietnam after only a little over a year of operation. The company has provided 43 PAPs with stable livelihoods with a monthly income of VND 4.5 million/person. In the near future, the company is looking to expand and establish close relations with foreign suppliers and develop its main product stream with a more diverse portfolio of export products.



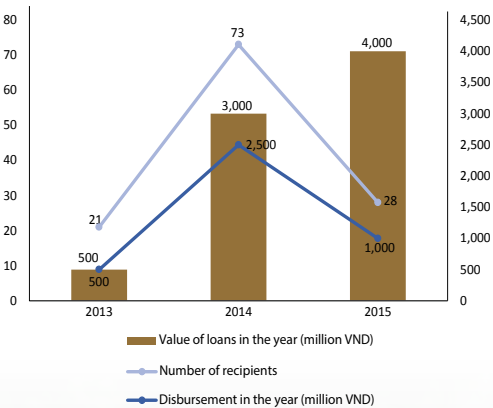


Economic restoration fund

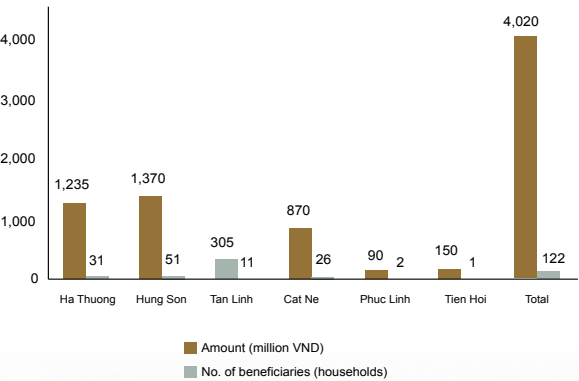
Established in 2013 as part of the partnership between Masan Resources and the Dai Tu Social and Policy Bank, the micro-finance fund has proved to be an effective and innovative economic restoration model that meets the needs of the local people. Households and enterprises can borrow up to VND 50 million and VND 200 million respectively at a favourable interest rate of

0.55% per year as regulated by the state bank policies. Currently 122 households are utilising the fund for their income generation activities such as expanding or starting up livelihood models or entrepreneurial activities. Loans have been used to purchase livestock, fodder, seedlings and fertilizer and to improve infrastructure, facilities and technology.

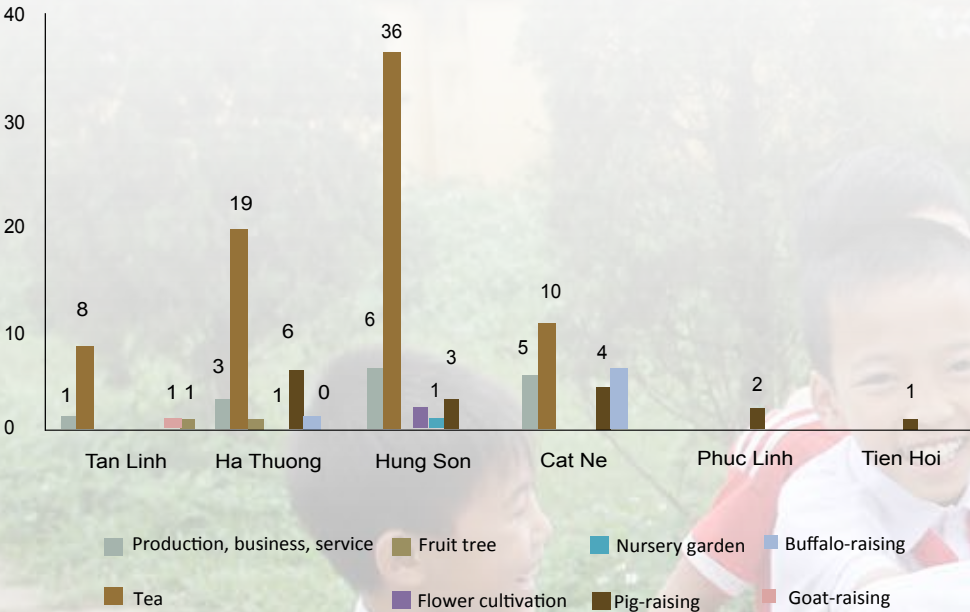
Economic restoration fund by year (2013-2015)



Beneficiaries of Economic restoration fund by affected communes

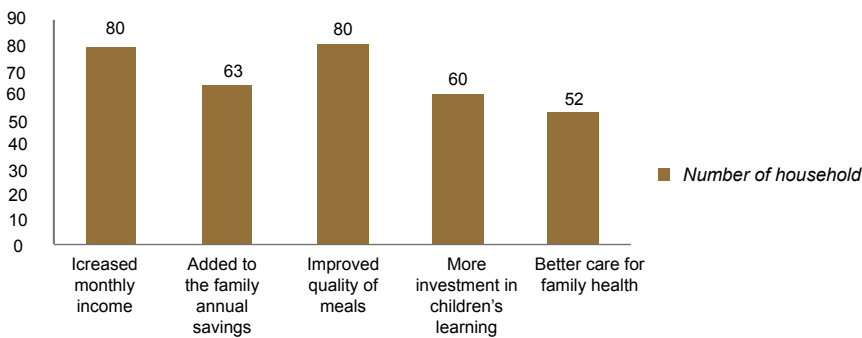


Income generation models using Economic restoration fund



The economic restoration fund is considered an affordable means of access to capital that empowers people to create opportunities for themselves and others. 80 out of 122 borrowers participated in the recent mid-term evaluation.

Impact of the models



Useful source of capital

Nguyen Van Quang and his family lost 2,000 m<sup>2</sup> of tea-cultivation land upon land acquisition for Nui Phao operations. Starting with a herd of 30 female rabbits and ten bunnies, he borrowed VND 45 million from the fund and successfully expanded the micro-finance fund model. Now he has increased his business size eightfold. Quang and the cooperative managed to sell nearly 500 rabbits with a 40% net profit in 2015. The initial success of Quang inspired others in the community to follow his model or approach the fund to start their own businesses.





Philanthropic donations and sponsorship activities

Masan Resources discharges our social responsibilities through various programmes and activities, which are often incorporated into government's and enterprises' programmes of poverty and hunger eradication; housing assistance; and donations, philanthropy and sponsorship for local and regional events.



Free medical examination for elderly, children and disadvantaged people



Charity activities in Cay Thong, Phuc Luong, Dai Tu

We recognise that the tea industry supports the majority of households in and is a competitive advantage of Thai Nguyen Province. Therefore, we support the promotion of Thai Nguyen tea and the industry – by being one of the main sponsors of the biennial tea festival in Thai Nguyen – as part of our commitment to promoting regional economic development. In 2015, Masan Resources sponsored the third international Thai Nguyen tea festival and Dai Tu district tea festival by donating VND1 billion and VND538 million respectively.

For its outstanding performance in CSR, Masan Resources received the Corporate Social Responsibility and Community Development award from the MPI in April 2015.



Inauguration of the Culture house of hamlet 13, Tan Linh commune



Sponsor for the international tea Festival in Thai Nguyen

Focus 2016 – Community Development

- Infrastructure development;
- Capacity building, including better education and skills;
- A pilot program for community health care;
- Improving water and sanitation management;
- Strengthening local livelihoods and economic development through supporting outsource activities and/ agricultural service extension;
- Promote partnership with government and other major Company contractors and suppliers for community development initiatives and economic restoration activities;
- Promote shared value activities on the basis of the Company development objectives and existing resources



ECONOMIC PERFORMANCE

- Direct economic impact
- Indirect economic impact
- Supply chain management

In parallel with our strategy of creating low-cost assets but maintain profits and generate long-term value for the local community, Masan Resources has implemented programmes and initiatives to facilitate socio-economic development. Various direct and indirect economic impact were generated in the wider scale from our contributions in taxes, royalties and natural resources tax to the state budget. We realise the potential indirect economic impact our operations can create and continuously strive to ensure they have a net positive result.



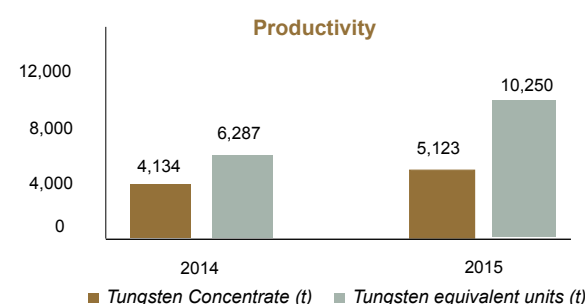
# DIRECT ECONOMIC IMPACT

Although the operating outlook remains difficult, we continue to be positioned to outperform our competitors. As one of the lowest cost producers of tungsten globally and with 90% of our planned production committed to established global counter parties, we are poised to generate sustainable returns through this time of uncertainty.

It is to refer to the Annual Report 2015 of Masan Resources which is published in parallel with this Sustainability Report. This section does not repeat all aspects of the business operations which were presented fully in the Annual Report, but focuses on some key issues of direct and indirect economic impact and supply chain management.

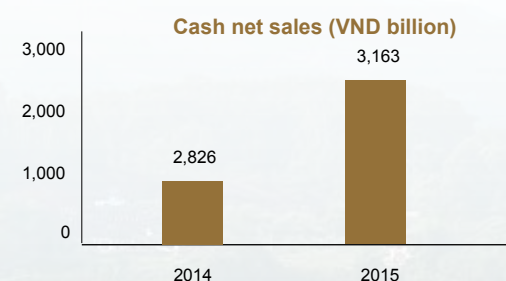
## Production

Record production was achieved in 2015 for all of the Company's commodities. On a tungsten equivalent basis, total production increased by 63% year-on-year with tungsten and copper production increasing by 24% and 31% respectively. Ore processed, recovery rates and other key plant parameters have all improved on the back of operational initiatives.

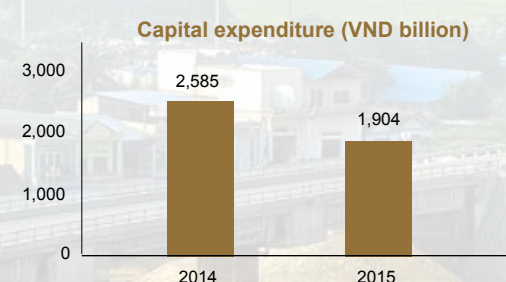


## Revenue and economic performance

Cash net sales grew to VND3,163 billion in 2015. Record production allowed for record sales as all output was fully sold to a diverse range of customers and trading partners. With the tungsten chemicals processing plant commissioned, we are able to offer a more diverse supply of tungsten products. This will allow us to expand our sales network that will facilitate the sale of all our expected increase in production in 2016.



Capital expenditure declined by VND681 billion in 2015. Our capital expenditure included outlays for the construction of the tungsten chemicals plant, on-going development of the tailing dams, road and rail diversions, community infrastructure projects, and plant improvements. Majority of the capital expenditure projects undertaken were completed during the year, however there are a number of high return projects that are to be commissioned during the first half of 2016.



Masan Resources reported 2015 profit attributable to its shareholders of VND152 billion, a 223% increase over the previous year. Our robust result was underpinned by increased production, sale of all our commodities produced and operational led cost efficiencies.

# INDIRECT ECONOMIC IMPACT

Our greatest impact is economic, particularly experienced in the local region surrounding our operations. We are developing key infrastructure and services in the region to cater to our operations. Indirectly this supports the development of surrounding communities, for example with better transport links. We hire PAPs as a priority, and provide training and support to kick-start new career paths. We support local enterprises to ultimately improve the local economy and support its people. We want to ensure that the local area is not worse off because of our presence, for both the present and the future (see more: Localisation of resources, page 75).

We pay taxes to the national government for our products and also contribute to employees' social benefits.



Local casual workers in the Nui Phao mine site

We realise the potential indirect economic impact our operations can create and continuously strive to ensure they have a net positive result. In 2015, we contributed VND 436,924 million through taxes and royalties to the government of Vietnam and Thai Nguyen Province including import and export taxes, environmental protection and natural resources tax and production royalty tax.

We realise the potential indirect economic impact our operations can create and continuously strive to ensure they have a net positive result.



Catering service at the Nui Phao mine under the Economic restoration program



SUPPLY CHAIN MANAGEMENT

The sustainable development approach has been gradually adopted by our Supply Chain Management (SCM) Department and we have set primary objectives, which are:

- To provide an uninterrupted flow of quality materials and services to the user departments at the lowest total cost of ownership (TCO)
- To procure competitively and ethically in a manner that enhances Nui Phao Mining's/Masan Resources' economic value and improves the Company's return on investment

Our supply chain

The SCM Department and Business Shared Services (BSS) Department work closely together to support our business strategy by providing our customers with the right materials at the right time at the right price, in the right quantity, in the right place, from the right source. SCM identifies suppliers and establishes the reasoning for awarding the contract, and provides bank details. BSS then carries out the necessary checks and approve the vendors and amounts. In the event that BSS identifies something wrong and does not agree, then it feeds this back to SCM, asking them for clarification and possibly changing the vendor.

We have implemented a business support service system (SAP) to enhance our warehouse model, where the SAP was adopted initially to design reports. It has been enhanced with higher visibility and transparency in terms of reporting to ensure a timely release. As the Company is now a listed company, it needs to disclose data to the stock exchange, and this change in management will make data more readily accessible.

- To maintain stable and professional relationships with high quality suppliers and service providers
- To appraise and adopt supply chain methods and techniques that improve the supply chain function
- To minimise risk to the Company's business by conforming to the highest standards of safety, ethics and commercial practice
- To maintain positive community relationships and support Masan Resources in its sustainable development policy

This year, logistics supply and materials management were consolidated to create a Materials Management and Logistics team within the SCM Department. In doing so, we aim to increase warehousing and transportation efficiencies, enhance supply security, reduce risks and thereby safeguard Nui Phao Mining's / Masan Resources' interests. We are currently aiming at stabilising the operation in 2016.

In the second quarter of 2015, SCM took the initiative to transition all logistics services from a system of third-party contractors to in-house services to cut costs, improve business efficiency and enhance our staff's capabilities. We also used another cost-cutting strategy through the introduction of multi-modal transport, i.e. trucking cum barging, for our products. Not only has this method achieved substantial cost benefits, it has also reduced the number of tractors used and reduced our carbon footprint. The next stage planned is anchorage, which is a new model to increase efficiency and save manpower.

Localisation of resources

We are currently working on initiatives to develop local contractors, and 2015 marks our commitment to source materials locally. Many products previously imported from Australian suppliers have been replaced by those purchased from Vietnamese vendors. This helps enhance regional economic development and increase savings on tariffs and transportation costs and to reduce our carbon footprint.

The SCM Department has cooperated with the Operations team to enable us to have access to secure supplies without disruptions. We aim to enter more long-term contracts with established suppliers (currently a longest contract lasts for two years) and implement labour standards and environmental checks on our suppliers. Our Contracts team can leverage value by entering into long-term contracts with selected service providers.

Our management systems are also efficient in preventing any potential conflict of interest by issuing announcements or signing declarations, which is mandatory for every department. Any potential business partner is required to make a declaration of conflict of interest to guarantee that the person and/or organisation will remain impartial regardless of any other business ties with Masan Resources. We also review our policy on fraud annually by engaging KPMG as an auditor. With the expanded operation necessitating larger business deals, we have installed an authorisation system for payments and procurement. Approval authority is assigned to certain levels of management, with restricted authority on bank transfers.



The pallet production company - a local supply enterprise



The ore bag production company- the local supply enterprise



ABBREVIATIONS

APT	Ammonium Paratungstate
BoD	Board of Directors
BSS	Business Shared Services
CDP	Community Development Plan
CEO	Chief Executive Officer
CFO	Chief Finance Officer
CSR	Corporate Social Responsibility
DOIT	Department of Industry and Trade
DoLISA	Department of Labour, Invalids and Social Affairs
DoNRE	Department of Natural Resources and Environment
DPC	District People's Committee
DST	Department of Science & Technology
EIA	Environmental Impact Assessment
FAI	First Aid Injury
FC	Flotation cell
GHG	Greenhouse Gas
GJ	Gigajoule
GRI	Global Reporting Initiative
HNX	Hanoi Stock Exchange
HR	Human Resources
HSS	Health, Safety, Security
ICMM	International Council on Mining and Metals
PAP	The project-affected people
PCDP	Public consultation and information disclosure program
IFC	International Finance Corporation
ITIA	International Tungsten Industry Association
KPI	Key Performance Indicator
LTI	Lost-Time-Injury
LTIFR	Lost-Time-Injury Frequency Rate
MIMS	Masan Integrated Management System
MOIT	Ministry of Industry and Commerce
MoNRE	Ministry of Natural Resources and Environment
MPI	Ministry of Planning and Investment
MSR	Masan Resources
MTI	Medical Treatment Injury
MWh	Megawatt hour
NGO	Non-government organization
NPMC	Nui Phao Mining Company
NWR	Non-Work Related
OTC	Oxide Tailing Cell
PAPs	Project Affected People

PCDP	Public Consultation and Dissemination Plan
PPC	Provincial People's Committee
PPP	Public Private Partnerships (PPP)
PRA	Participatory Rural Appraisal
RAP	Resettlement Action Plan
SCM	Supply Chain Management
STC	Sulphur Tailing Cell
TRIFR	Total Recordable Injury Frequency Rate
TSF	Tailings Storage Facility
UNGC	United Nations Global Compact
VAGME	Vietnam Business Association of Geology and Minerals
VAS	Vietnamese Accounting Standards
VCCI	Vietnam Chamber of Commerce and Industry
VietGAP	Vietnamese Good Agricultural Practices
VND	Vietnam Dong
WHA	waste high arsenic
WHS	waste high sulphur
WWTP	Wastewater Treatment Plant



GRI Content Index

General Standard Disclosures			
Indicator Code	Indicator	Content in Sustainability Report 2015	Page number
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G4-2	Description of key impacts, risks and opportunities	Strategy and analysis	24 – 25
Organizational Profile			
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G4-4	Primary brands, products, and/or services	Highlights 2015	12 – 13
G4-5	Location of organization's headquarters	About us	10
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