

SUSTAINABILITY FOR ALL OF US

2016
SUSTAINABILITY REPORT





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ABOUT THIS REPORT

This Sustainability Report has been prepared for the purpose of demonstrating the key sustainability issues, how we address them, and our performance in 2016. The content of this Report is based on the Company's business activities, the interests of the stakeholders, and material aspects that have a large influence on the issues of economy, the environment, and society. A summary of Company Sustainability Report is provided in the Annual Report 2016.

The Sustainability Report was prepared in accordance with the Global Reporting Initiative (GRI), G4 Guidelines. It 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), the World Bank's guidelines on involun-

tary 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).

This year's Sustainability Report is particularly characterized with its adherence to the Sustainable Development Goals (SDGs) as announced by the United Nation in 2015, which offers 'a vision of a fairer, more prosperous, peaceful and sustainable world in which no one is left behind' (FAO:2015) .

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 2016 report.



CONTACT INFORMATION

Masan Resources Corporation Nui Phao Mining Company Limited

Company Office:

Hamlet 2, Ha Thuong commune, Dai Tu District, Thai Nguyen - Viet Nam

Representative Office:

Level 15, Hoa Binh international building, 106 Hoang Quoc Viet Street,
Cau Giay District, Ha Noi - Viet Nam

Telephone: +84 4 37182490

Fax: +84 4 37182491

Websites: www.masanresources.com

Dr. Dinh Thi Ngoc Bich

Head of Community Liaison, Economic Rehabilitation and Sustainability

MESSAGE FROM CEO

Dear stakeholders,

The Vietnam Business Council for Sustainable Development (VBCSD), established in December 2010 to improve the environmental awareness of enterprises' and their better contribution to sustainable development in Vietnam, hosted in 2016 the third Vietnam Corporate Sustainability Forum (VCSF) with the theme of "Creative to Deploy Sustainable Development Goals." The highlights of this year were presented by Dr. Vu Tien Loc, VCCI President, who said that "sustainable development is not a choice but the only way for enterprises to go forward".

We are delighted to report that our sustainability outcome continues to improve, indicating that Masan Resources (MSR) is approaching the sustainable development goals, while maintaining the social license to operate by increasing our levels of commitment as well as our degree of compliance.

Notably, we have focused on sustainability impacts along the value chain, looking at both upstream and downstream stages of our operations, and on the broadening of socio-economic development in the locality, which gives us our theme of **"SUSTAINABILITY FOR ALL OF US"**.

In the context of Viet Nam society where corporate social responsibility (CSR) activities have been broadly proliferated, the way enterprises implement their CSR activities in order to demonstrate their core values and dedication to communities has become



a matter of concern. In this regard, since the onset of our operations MSR have invested 30 billion VND on CSR activities. In particular, in last year alone MSR invested 3,7 billion VND on infrastructure development, agricultural service extension, environment sanitation and capacity building, income creation and living conditions enhancement for tens of thousands beneficiaries in the locality. Notably, the way MSR executed its CSR activities has created additional added value in the form of the influence

on other local and national enterprises and on the provincial policies in the mobilization of resources for sustainable development.

This year has also witnessed a great deal of innovation where new processes with regards to cost saving and changes in business have been developed by new way of engagement. In particular, the throughput of the production process has been enhanced owing to the successfully delivered production improvement projects, such as the Bulk Sulphide Flotation (BSF) circuit to increase

stability, capacity and efficiency of the production as well as maximizing metallurgical processing and maintenance operations to achieve enhanced production efficiency. In addition, the diesel-powered generators have been replaced with mains electrical power for most of our pumping activities, which significantly reduced our carbon footprint. Moreover, the power consumption in the BSF circuit has been reduced by 30% or a total of 270KW per hour.

Being one of the Sustainable Development Goals (SDGs), the system of production needs to be

aligned with economic, environmental and social sustainability. To this end, MSR is adopting stringent standards for monitoring the Nui Phao's impact on the local environment and communities, and have applied international standards for health and safety to protect our workers at the mine. Specifically, since 2013, we have engaged with reputable agencies such as the international firm, SGS, which has a laboratory on our mining site, Gusho Kohsan of Japan, and the Institute of Environmental Science and Public Health. Also, since 2013, each day, more than a dozen samples are collected and analyzed to measure the environmental impact, totaling 15,563 samples out of which 14,232 were water samples, while the remaining samples were treated water, soil and tailings samples. With regards to health and safety, the Company continued to record no lost time injuries (LTI) in over 18 million man-hours and did not have a serious injury reported for 891 days. For a project of this scale, this track record firmly places Nui Phao Mining as one of the safest and best managed mine site in the world.



While talking about people – we also rolled out the MSR Academy at Nui Phao. This is our employee training and development program – ensuring companywide competency and training to provide the platform for professional development of employees, with the aim of maintaining and sustaining our future competitive advantage. The MSR management team are also articulating a broader understanding of their impact and demonstrate, by way of example, how they are seeking 'good growth' that

blends societal and environmental values with solid returns for our shareholders/ investors.

MSR believe that in order to be successful in business, we must be successful in meeting and exceeding our environmental and social responsibilities. Toward that end, we have put into place the proper governance, operational and technology structures enabling us to consistently consider our values as a component of every business decision.

This is the fourth year we have completed an in-depth review of our sustainability activities and MSR have grown to become one of the first mining companies in Viet Nam which discloses comprehensive sustainability reports under the strict GRI standards.

In response to the concerns of all stakeholders, we are committed to sharing a greater amount of information about our sustainability outcomes through various channels,

such as the MSR website, media agencies, information centers and open dialogue with our partners. We welcome engagement with media, regulators, and the general public to help them understand for themselves that our mining project, utilizing local and international standards in Vietnam can help to change attitudes and bring **SUSTAINABILITY FOR ALL OF US.**

Yours faithfully,

Dominic John Heaton
Chief Executive Officer of Masan Resources





> HIGHLIGHTS 2016

Cash net sales record to
VND 4,149
 billion

95%
 availability with non-shutdown
 months

12,926
 tonnes
 of Tungsten equivalent units
 (contained) increased by
 26%

>18 million
 hours LTI free

528
 employees
 have attended a variety of
 subject-based training courses

1,027
 permanent employee in total
 on a managed basis

VND 3.7
 billion
 in community investment

➤ MSR SUSTAINABILITY
VALUES



Upstream

Compensation, support and resettlement
under national and international standard

Legal compliance and permitting

International standard references



Midstream

Year to year stable production records

Safety championship with 18 million of man-hours without a lost time injury and fatality free

Environmental compliance and beyond

Established local outsources

Global blue chip customer network

Innovation outcomes for effectiveness and efficiency

Downstream

Nearly 80% job opportunities for local people

Top tax payer in the province

“Premium” ranking on the UPCOM Board

Show case PPP model in micro finance

AWARDS & RECOGNITION 2016

Recognized as a showcase model for the mining industry in Viet Nam, 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:



Certificate for “Green Branch 2015”

Awarded by

Natural Resources & Environment Magazine,
Ministry of Natural Resources & Environment

Certificate for Top 10 Prestigious Enterprises in Mining Industry 2015

Awarded by

Enterprise Credit Rating Appraise Science Center (CRC) under Vietnam Union of Science & Technology Associations (VUSTA).

Merit for Enterprise with Outstanding Achievements in implementation of mission 2015

Awarded by

Thai Nguyen Provincial People’s Committee

Certificate of sponsor with great contribution to the success of Dai Tu Tea Festival 2016

Awarded by

Dai Tu district People’s Committee



Certificate for Trusted Brand Index (TBI) 2016

Awarded by

Vietnam Enterprise Institute joint with the InterComformity Assessment and Certification Company (Federal Republic of Germany)

Merit for Outstanding Achievement in State Budget Performance 2015 (*)

Awarded by

Thai Nguyen Department of Taxation

Certificate and Order of Merit “Joining hands to implement emulation movement on building new-style rural areas”

Awarded by

General Council of Agriculture and Rural Development Vietnam

Certificate of “Enterprise of culture standards”

Awarded by

Dai Tu district People’s Committee

(*) Four consecutive years 2012, 2013, 2014 and 2015



Certificate of Top 500 biggest Enterprises in Vietnam

Awarded by
Vietnam Report

Merit Certificate for Outstanding Performance in contribution to development of Vietnam’s Industry and Trade on the 65th anniversary of establishment – 14 May 1954 – 14 May 2016.

Awarded by
Thai Nguyen Provincial Industry and Trade Department

Merit for Outstanding Achievements in Occupational Safety and Health and Fire & Explosion Prevention in 2015

Awarded by
Bureau for Safe Work

Merit for Outstanding Achievement in Cultural – Sport Activities 2015

Awarded by
Vietnam General Confederation

Gold Cup Excellent Enterprise ()**

Awarded by
Thai Nguyen Department of Labor Social, Invalid and Social Affairs (DOLISA) in co-operation with Thai Nguyen Provincial People’s Committee

Merit Certificate for Excellent Achievement in developing Trade Union organizations firmly and strongly.

Awarded by
Thai Nguyen Provincial Labor Confederation

Merit for Enterprise with Outstanding Achievement in the Mass Movement of Fire Prevention and Rescue 2016

Awarded by
Dai Tu district People’s Committee

(**) Four consecutive years 2013, 2014, 2015 and 2016



ABOUT US

Vision and Mission

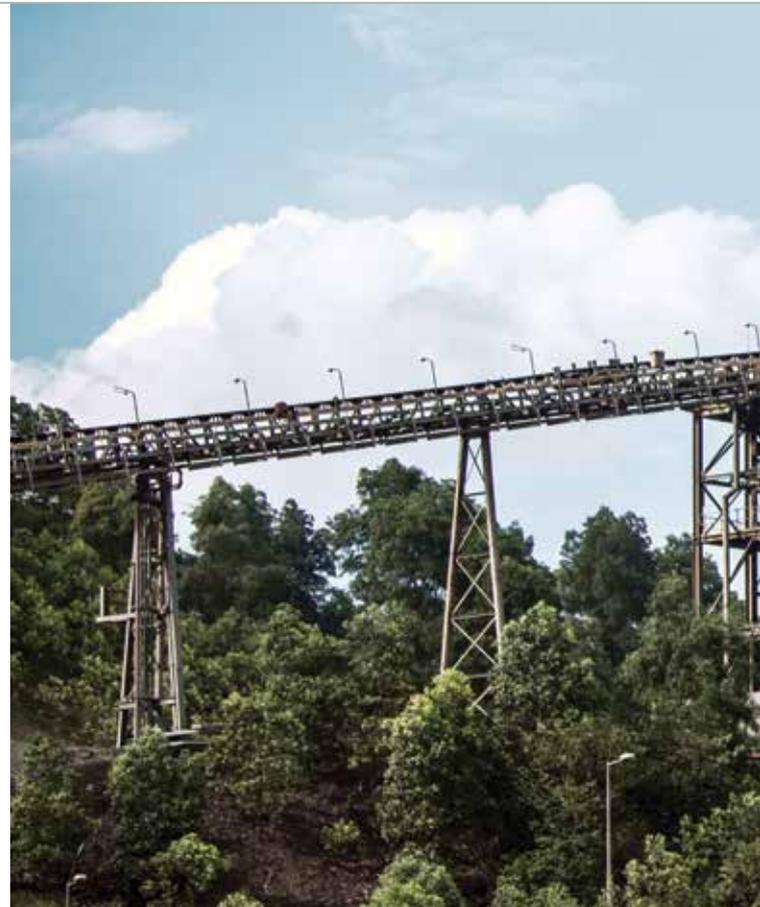
Corporate profile

Nui Phao project

Management Structure

Masan Resources is a leading producer of midstream and upstream 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 with probable ore reserves of 66 million tonnes (Mining license allows for 83.22 million tonnes of tungsten - polymetallic ore of grades B and C1, divided in the following way: (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.



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.

CORPORATE PROFILE

Name of the Company

Công ty Cổ phần Tài nguyên Masan

English name

Masan Resources Corporation

Abbreviated name

Masan Resources

Head office

Suite 802, 8th 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

www.masangroup.com/masanresource

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 13th time on May 6, 2016

Charter Capital

VND7,194,473,280,000

Stock code HNX: MSR

HISTORY

2010

On April 27, the Company was founded under the name of Ma San Resources Corporation.

In July, Nui Phao Mining was incorporated with the purpose of owning and operating the Nui Phao Project to extract and process minerals in Ha Thuong Commune, Dai Tu District, Thai Nguyen Province.

On September 21, Nui Phao Mining received Mining License No. 1710/GP-BTNMT, issued by MONRE.

On September 23, Masan Group completed the acquisition of a controlling interest in Nui Phao Mining.

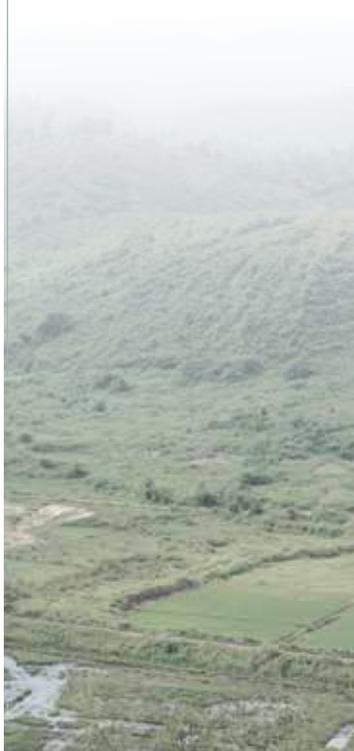


2011

Acceleration of project development for the Nui Phao Project.

In March, MRC Ltd., an investment vehicle of Mount Kellett Capital Management L.P., became a shareholder holding 20% of the Company's charter capital.

In December, the National Mineral Reserves Assessment Council acknowledged the results of the Nui Phao Project's resources and reserve grade conversion.



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:

2012

In February, Nui Phao Mining obtained MOIT's official approval of the Nui Phao Project's basic mine design.



2013

In January, Private Equity New Markets II K/S, an investment vehicle of BankInvest, became a shareholder holding 2.86% of the Company's charter capital.

In June, MRC Ltd. increased its stake in the Company to 21% of the Company's charter capital.

In August, the Company received Investment Certificate No. 41122000131 from the People's Committee of Ho Chi Minh City.



2014

The Nui Phao Project started commercial production for Tungsten Concentrate and Copper Concentrate on March 1, Fluorspar Acid Grade on June 1, and Bismuth Concentrate on September 1.



2015

Record production achieved for all four commodities. The Joint Venture obtained the Certificate of High Tech issued by Ministry of Science and Technology on April 24, 2015.

Achieved design capacity and successfully commissioned JV's APT plant. Initiatives undertaken to further ramp up production and increase operational efficiencies.

In September, Masan Resources successfully completed its listing on Hanoi's UPCOM exchange.

In September, MSR hosted the 28th International Tungsten Industry Association (ITIA) annual meeting, attended by over 120 global delegations.

2016

Successfully held the first AGM after listing on April 22, 2016; ranked as "premium" on the UPCOM Board of the Hanoi Stock Exchange.

Continued innovating and investing in upgrading with new processes and technology, cost saving, change in business process, developed new way of engagement.

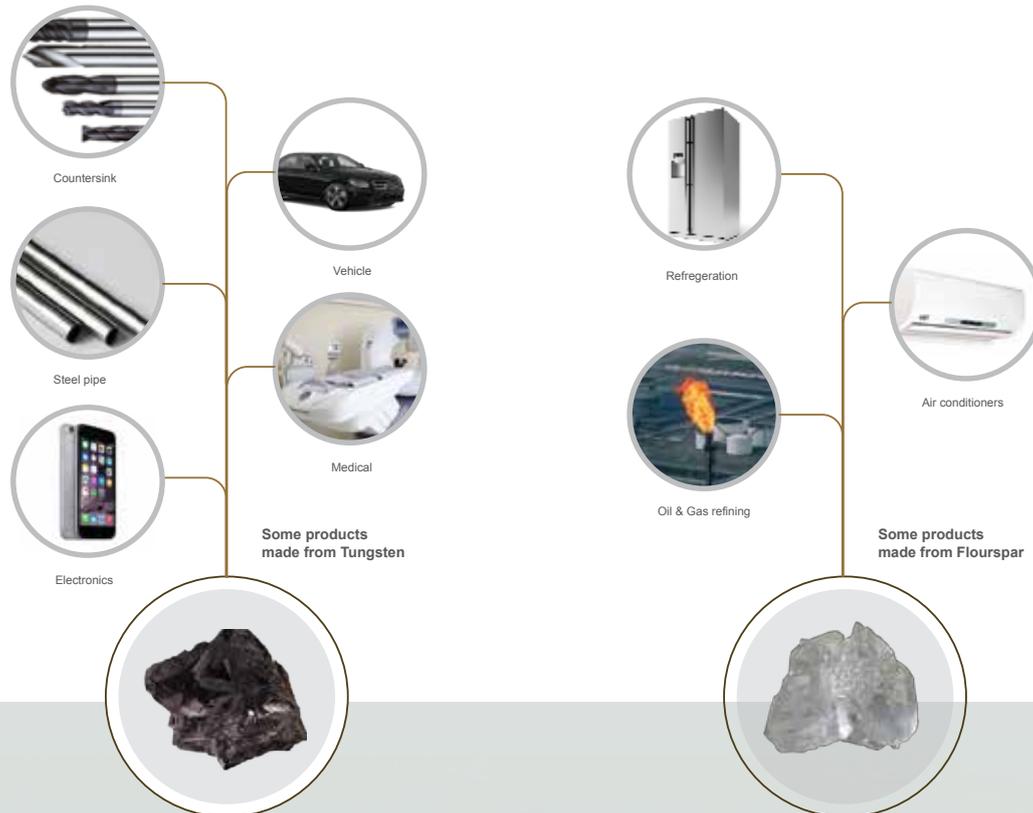
The Joint Venture has significantly advanced the production volume and revenue of the value added tungsten chemical processing business.

In December 2016, Masan Group through its wholly owned subsidiaries, successfully completed the tender offer for shares of Masan Resources, thereby providing an exit to Mount Kellett and increasing its ownership in MSR to 93.78%, paving the way for the next round of strategic capital and growth.



» PRODUCT PORTFOLIO

Tungsten, Fluorspar, Copper and Bismuth produced at the Nui Phao mine are strategic metals that are important for many industries in the world today.



Tungsten (WO_3)

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.

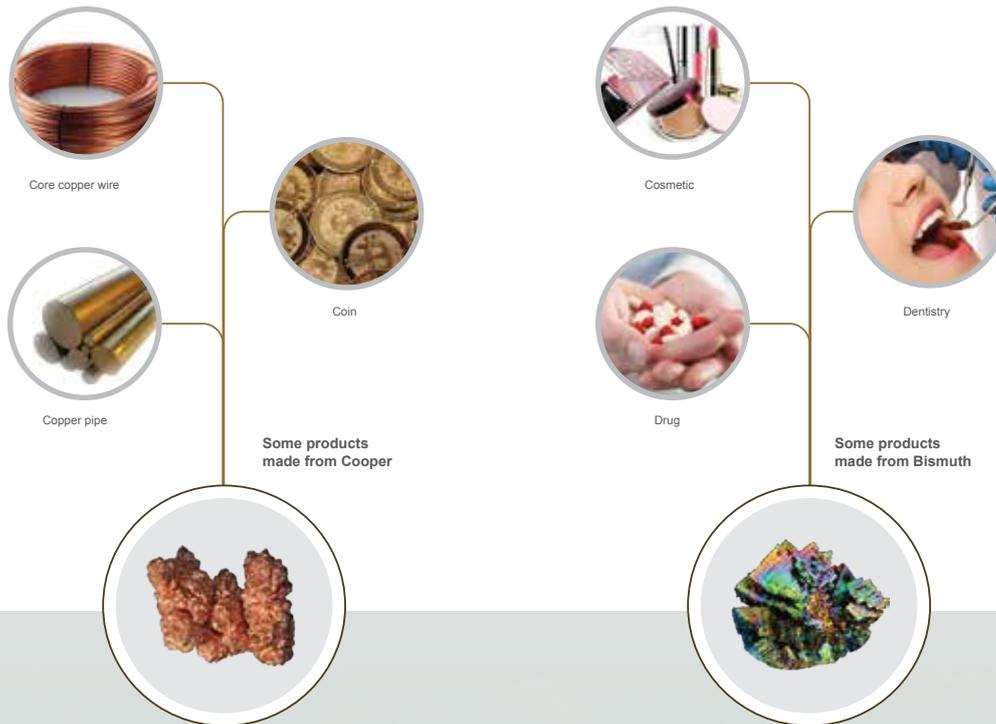
Tungsten is mainly used in the production of cemented carbides or hard-metals, which due to their wear-resistant properties are used in the metal-working, mining, petroleum and the construction industries. It is virtually non-substitutable for a variety of industrial applications such as the production 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_2)

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_2), 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_2 is mainly used for quality enhancement in steel production.

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



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.

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.

NUI PHAO PROJECT

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. 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.

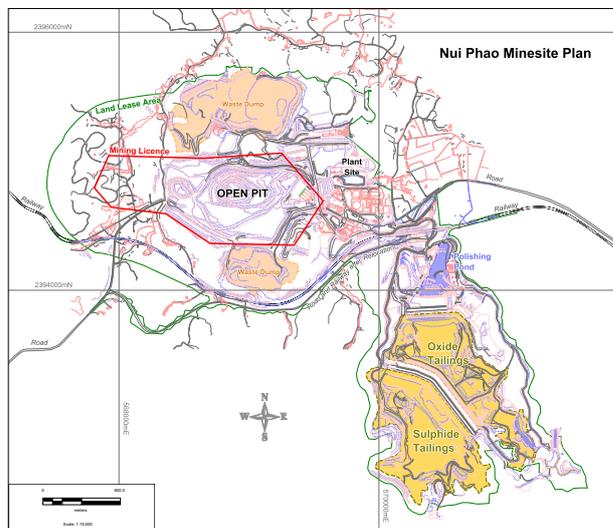
The Nui Phao mine’s proven and probable ore reserves are estimated at 66 million tonnes, with an estimated mine life of 20 years.

The 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 Paratungstate (APT) plant that processes tungsten concentrate into higher value-added Ammonium Paratungstate.
- A tailings storage facility (TSF) with water and tailing management ponds
- Buffer zones, relocation sites, haul roads, and mine services.

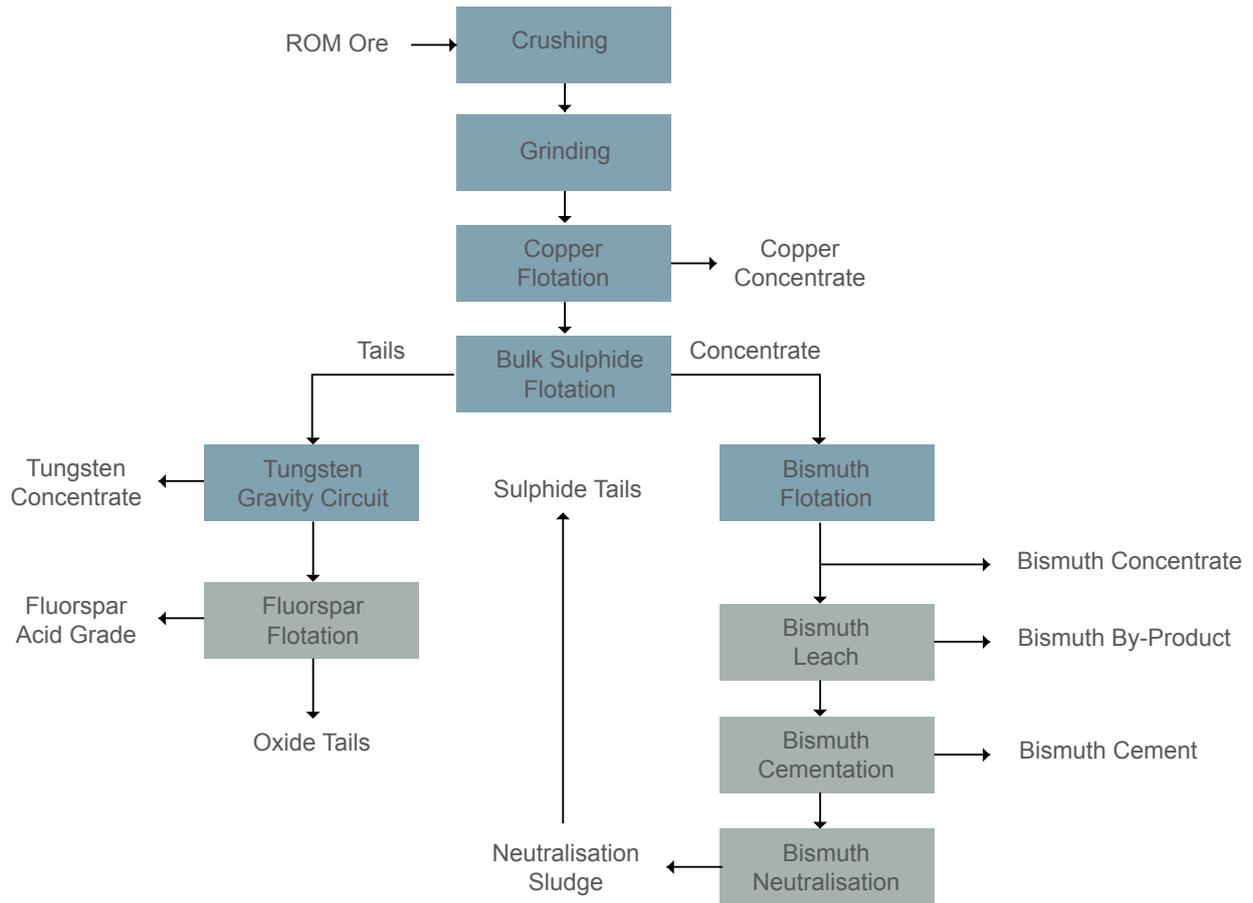
Products from Nui Phao are shipped to worldwide markets from Quang Ninh Port (in Ha Long City, 197 km to the southeast of the Project). The port is also used to receive equipment and materials required to run the mine.

The location of Nui Phao Mine site



The following is a brief description of the current processing plant design of Masan Resources. 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.

Process flow diagram



MANAGEMENT STRUCTURE

BOARD OF DIRECTOR

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.

The current members of the current Board of Directors are as follows:

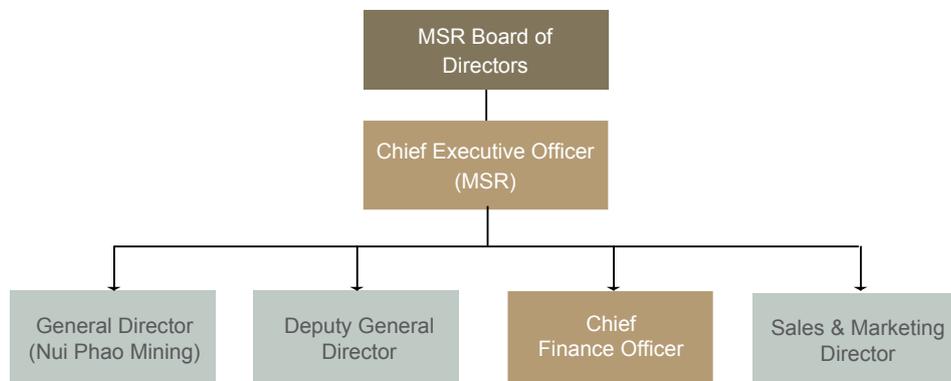
Name	Position	Independent member/ executive/ non-executive	Date of appointment
Mr. Chetan Prakash Baxi	Chairman	Independent member	20/12/2013
Dr. Nguyen Dang Quang	Member	Non-Executive member	18/02/2013
Mr. Nguyen Thieu Nam	Member	Non-Executive member	18/02/2013
Mr. Nguyen Van Thang	Member	Independent member	22/04/2016
Mr. Dominic John Heaton	Member	Executive member	22/04/2016
Mr. Jonathan David Fiorello	Member	Non-Executive member	06/11/2014

MANAGEMENT TEAM

List of members of the Management Team

Name	Position
Mr. Dominic John Heaton	Chief Executive Officer
Mr. Nikhil Kamran	Chief Finance Officer

The Organisation chart of MSR



Note: ■ Members of MSR Management Team



Mr. Dominic John Heaton
Chief Executive Officer

Mr. Dominic John Heaton 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 his career in the mining industry, Mr. Heaton 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.

Mr. Heaton 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. Nikhil Kamran
Acting Chief Financial Officer

Mr. Nikhil Kamran has more than 11 years of financial experience across a range of sector including real estate, gaming, lodging, agriculture and media.

Prior to joining Masan Resources, Mr. Kamran was the Director of Finance at a private equity company where he originated and managed mandates that ranged from corporate finance, corporate restructuring, M&A and IPOs. During this time, Mr. Kamran was concurrently an Executive Director of an Asia focused Investment holding company that had interests in the natural resources industry and working relationships with various government and private enterprises. Mr. Kamran graduated from the University of Pennsylvania, USA.

Management Team of Nui Phao Mining Company Ltd.,

Mr. Craig Bradshaw
General Director

Mr. Craig Bradshaw 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 Ltd Sepon Mine. Mr. Bradshaw 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

Mr. Vu Hong 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 the 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. Nikhil Kamran
Chief Financial Officer

Mr. Nikhil Kamran has more than 11 years of financial experience across a range of sector including real estate, gaming, lodging, agriculture and media.

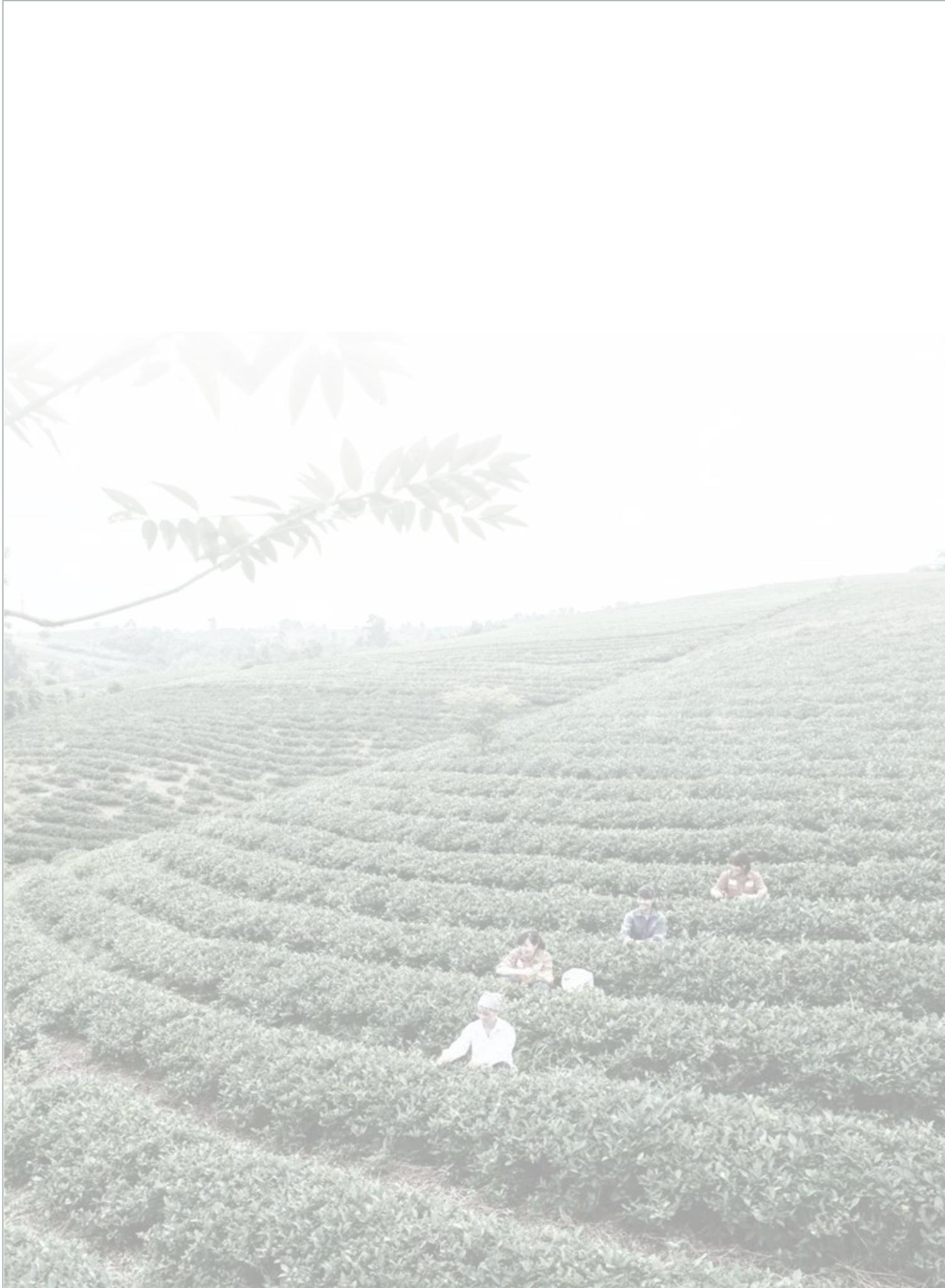
Prior to joining Masan Resources, Mr. Kamran was the Director of Finance at a private equity company where he originated and managed mandates that ranged from corporate finance, corporate restructuring, M&A and IPOs. During this time, Mr. Kamran was concurrently an Executive Director of an Asia focused Investment holding company that had interests in the natural resources industry and working relationships with various government and private enterprises. Mr. Kamran graduated from the University of Pennsylvania, USA.



Mr. Tony Fitzgerald
Sales & Marketing Director

Mr. Tony Fitzgerald has more than 25 years of experience in the metals industry across a range of commodities and products including refined copper, zinc, lead and mineral concentrates. Mr. Fitzgerald has worked with Pasminco, MIM, Xstrata, Transamine and Louis Dreyfus in marketing, international sales, metals trading, business development and mine to market logistics.

Mr. Fitzgerald holds a Bachelor of Arts, multi-disciplinary, from Victoria College, Australia.



SUSTAINABILITY AT MASAN RESOURCES

- Development objectives
- Community and social development objectives
- Sustainability context
- Company execution strategy
- Values
- Sustainability framework
- Sustainability governance
- Materiality assessment



COMPANY DEVELOPMENT OBJECTIVES

In order to become the 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 producer of tungsten products outside China.
- 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 result in all our interactions, Masan Resources commits to continuously honour its responsibilities.

We deeply care 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 'golden standard' for social and environmental sustainability for mining projects) to add value to our communities and to minimize any adverse impacts from our project works.

OUR SUSTAINABILITY CONTEXT



Source: <http://www.undp.org/content/undp/en/home/sustainable-development-goals.html>

SUSTAINABLE DEVELOPMENT

“Vietnam has been one of the developing countries which participated early in the global process of sustainability.

Viet Nam took part in the Earth Summit on Environment and Development in Rio de Janeiro, Brazil in 1992 and the World Summit on Sustainable Development in Johannesburg, South Africa in 2002. Viet Nam signed the Rio Declaration on Environment and Development, the Global Agenda 21, and committed to implementing sustainable development.

During the 25 years of implementation of national sustainable development policies and particularly since the adoption of the Strategic Orientation for Sustainable Development (Vietnam Agenda 21) on 17 August 2004, Vietnam has made remarkable achievements in the economic, social and environmental fields. However, Viet Nam still faces numerous challenges regarding the implementation of adequate sustainable development policies.

2016 was a year of special significance for the business sector in Viet Nam. The Vietnam Business Council for Sustainable Development (VBCSD), officially called for the adoption of the 2030 Agenda and set out 17 bold and inspiring Sustainable Development Goals (SDGs) which are expected to replace the Millennium Development Goals (MDGs).

The new global goals set out a much more complete and ambitious agenda than the MDGs. This

comes at a time when society has become more complex and diverse, economy more differentiated, and public expectations of better livelihoods and improved public services continue to rise.

At the same time, Vietnam continues to industrialize, stimulating physical displacement and various social and economic disturbances in rural areas. This deepens inequalities and risks degrading the environment.

The statement highlighted by Dr. Vu Tien Loc, VCCI President, “Sustainable development is not a choice but the only way for enterprises to go forward”, urges the adoption of the SDGs by industrial development strategies.

In this context, we all have role to play. It is stated that large-scale mining has the potential to play a critical role in helping to achieve the Sustainable Development Goals (SDGs) through social and economic benefit sharing and minimizing environmental impacts.

*Accordingly, we aim to set a good practice example in the industry, with the way we use our knowledge and resources in the implementation of sustainable development policies – in other words we want to take the practices further and **MAKE SUSTAINABILITY FOR ALL OF US**”.*

Dominic John Heaton
Chief Executive Officer of Masan Resources



OUR DEVELOPMENT STRATEGIES

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

Local knowledge and understanding to facilitate project execution

Masan Resources believes that a strong local understanding of community concerns and local sensitivities is critical for successful project development. We have been able to create a favorable business environment to develop and operate the Nui Phao mine by working proactively with our local communities

Use ability to access to capital and cash flows to acquire and develop quality assets

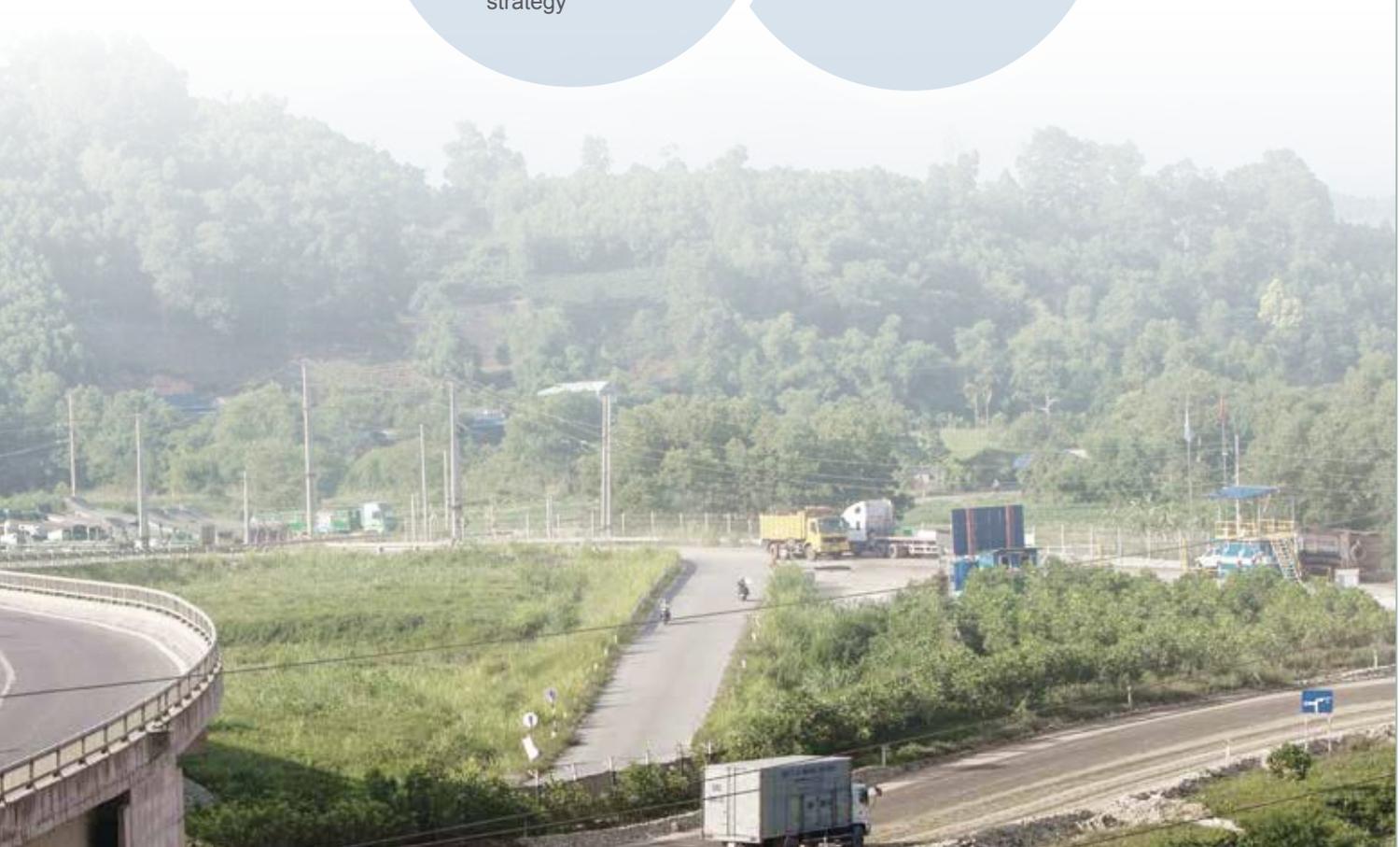
On identification of value accretive scalable assets, Masan Resources has the ability to access internal and external capital to acquire, develop and stabilize these assets to insure the realization of sustainable long-term shareholder value.

Derisking projects through the Masan platform

Masan Resources is hedged against commodity price fluctuations through the diversification of its portfolio of metals and minerals. Masan Resources' low operational and financial risk is a result of its management's ability to leverage their and Masan Group's vast investor and partner network



MSR have found themselves in a challenging context composed of issues related to the environment and social and governance policies on the one side, and profit making and business viability on the other. We firmly endeavor to integrate sustainability into our development strategy and make **sustainability a fundamental part of everyone's daily activities.**



OUR VALUES

In Masan Resources, our values are fundamental to our business. As all extractive industries faced challenging market prices in years, it may have been tempting to focus on short-term performance at the expense of the long-term good of the enterprise and its stakeholders.

However, this is not the case of Masan Resources. We continue to fund our decisions, even during the toughest of times, in our corporate Values of **Respect, Actions and Results**.

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 direc-

tors. It was created as part of our continuing effort to ensure that we all 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.

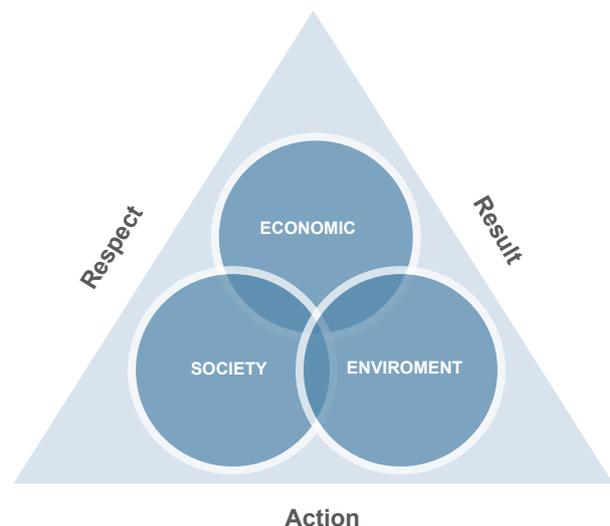
We believe that the benefits of strong ethics and integrity would be both tangible and intangible. First, the employee morale and productivity increases when the Company demonstrates good corporate responsibility and Company values. Second, the Company improves its reputation and branding in competitive markets as well as their access to capital through transparency and accountability.

SUSTAINABILITY FRAMEWORK

The sustainability framework makes our approach more effective by enabling us to benchmark our performance and continuously improve our sustainability initiatives.

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 are committed to compliance with international standards of corporate governance for the sustainable and long term development of the Company. 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, the IFC Sustainability Framework 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.

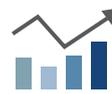


» ADAPTING SUSTAINABILITY GOALS TO THE COMPANY POLICIES AND REGULATIONS

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.

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 recognition and respect with the stakeholders and contributing to the long-term economic, social and institutional development of our communities;
- Seeking continual improvement in safety, health and environmental performance through robust management systems.



Strategy
Commitment and strategic priorities for sustainable mining operations that share values with stakeholders



Policies and procedures
Detailed management procedures for implementation



Standards
Operating standards for safe and sound management



Reporting
Reporting and disclosure, monitoring and evaluation

We embed our sustainability framework into all our operations. The sustainability framework is implemented at the employee level by aid of a document which outlines in a clear and transparent way the values employees need to demonstrate in their 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.



» PREFERENCE OF THE INTERNATIONAL STANDARDS

Applicable standard	Summary	
WB SOCIAL AND ENVIRONMENTAL SAFEGUARDS	1 Environmental Assessment	6 Access to Information Policy Subject to Independent Inspection Panel
	2 Natural Habitats	7 Involuntary Resettlement
	3 Forests	8 Indigenous Peoples Safety of Dams
	4 Pest Management	9 Projects involving International Waters
	5 Physical Cultural Resources	10 Projects in Disputed Areas
	http://web.worldbank.org/	
IFC SUSTAINABILITY FRAMEWORK	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 define responsibilities for managing environmental and social risks and the Access to Information Policy, which articulates the IFC’s commitment to transparency.	
	1 Assessment and Management of Environmental and Social Risks and Impacts	5 Land Acquisition and Involuntary Resettlement Performance Standard
	2 Labor and Working Conditions	6 Biodiversity Conservation and Sustainable Management of Living Natural Resources
	3 Resource Efficiency and Pollution Prevention Performance Standard	7 Indigenous Peoples
	4 Community Health, Safety, and Security Performance Standard	8 Cultural Heritage
https://www.ifc.org/wps/wcm/connect/b9dadb004a73e7a8a273fff998895a12/IFC_Sustainability_+Framework.pdf?MOD=AJPERES		



Applicable standard	Summary		
ICMM 10 SUSTAINABLE DEVELOPMENT PRINCIPLES	<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> <table border="0"> <tr> <td style="vertical-align: top;"> <p>1 Implement and maintain ethical business practices and sound systems of corporate governance</p> <p>2 Integrate sustainable development considerations within the corporate decision-making process</p> <p>3 Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities.</p> <p>4 Implement risk management strategies based on valid data and sound science</p> <p>5 Seek continual improvement of our health and safety performance</p> </td> <td style="vertical-align: top;"> <p>6 Seek continual improvement of our environmental performance</p> <p>7 Contribute to the conservation of biodiversity and integrated approaches to land-use planning</p> <p>8 Facilitate and encourage responsible product design, and the use, reuse, recycling, and disposal of our products</p> <p>9 Contribute to the social, economic, and institutional development of the communities in which we operate</p> <p>10 Implement effective and transparent engagement, communication, and independently verified reporting arrangements with our stakeholders</p> </td> </tr> </table> <p>https://www.icmm.com/our-work/sustainable-development-framework/10-principles</p>	<p>1 Implement and maintain ethical business practices and sound systems of corporate governance</p> <p>2 Integrate sustainable development considerations within the corporate decision-making process</p> <p>3 Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities.</p> <p>4 Implement risk management strategies based on valid data and sound science</p> <p>5 Seek continual improvement of our health and safety performance</p>	<p>6 Seek continual improvement of our environmental performance</p> <p>7 Contribute to the conservation of biodiversity and integrated approaches to land-use planning</p> <p>8 Facilitate and encourage responsible product design, and the use, reuse, recycling, and disposal of our products</p> <p>9 Contribute to the social, economic, and institutional development of the communities in which we operate</p> <p>10 Implement effective and transparent engagement, communication, and independently verified reporting arrangements with our stakeholders</p>
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UN SUSTAINABLE DEVELOPMENT GOALS	<table border="0"> <tr> <td style="vertical-align: top;"> <p>1 End poverty in all its forms everywhere</p> <p>2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture</p> <p>3 Ensure healthy lives and promote well-being for all at all ages</p> <p>4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p> <p>5 Achieve gender equality and empower all women and girls</p> <p>6 Ensure availability and sustainable management of water and sanitation for all</p> <p>7 Ensure access to affordable, reliable, sustainable and modern energy for all</p> <p>8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p> <p>9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p> </td> <td style="vertical-align: top;"> <p>10 Reduce inequality within and among countries</p> <p>11 Make cities and human settlements inclusive, safe, resilient and sustainable</p> <p>12 Ensure sustainable consumption and production patterns</p> <p>13 Take urgent action to combat climate change and its impacts</p> <p>14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development</p> <p>15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p> <p>16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</p> <p>17 Strengthen the means of implementation and revitalize the global partnership for sustainable development</p> </td> </tr> </table> <p>http://blog.movingworlds.org/the-full-list-of-the-17-united-nations-sustainable-development-goals-with-pictures-sdgs/</p>	<p>1 End poverty in all its forms everywhere</p> <p>2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture</p> <p>3 Ensure healthy lives and promote well-being for all at all ages</p> <p>4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p> <p>5 Achieve gender equality and empower all women and girls</p> <p>6 Ensure availability and sustainable management of water and sanitation for all</p> <p>7 Ensure access to affordable, reliable, sustainable and modern energy for all</p> <p>8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p> <p>9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p>	<p>10 Reduce inequality within and among countries</p> <p>11 Make cities and human settlements inclusive, safe, resilient and sustainable</p> <p>12 Ensure sustainable consumption and production patterns</p> <p>13 Take urgent action to combat climate change and its impacts</p> <p>14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development</p> <p>15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p> <p>16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</p> <p>17 Strengthen the means of implementation and revitalize the global partnership for sustainable development</p>
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» SUSTAINABILITY GOVERNANCE

» MULTI-LAYER SUSTAINABILITY MANAGEMENT

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.

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.

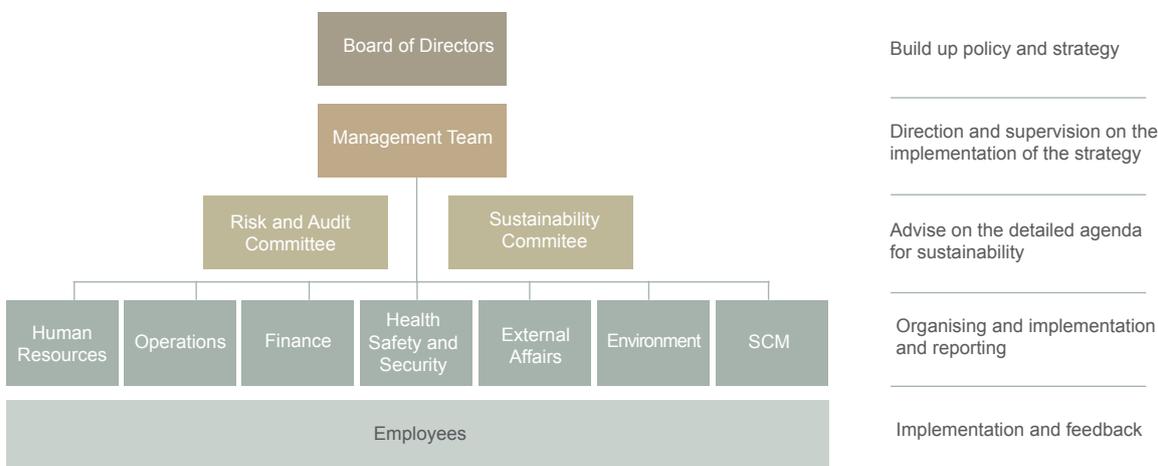
Executive Management including the CEO, Directors of External Affairs, Operations, HR, HSS, Environment and SCM, and the CFO are tasked with direction and supervision of strategy implementation at an operational level.



Management Team of Masan Resources and Nui Phao Mining

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.

In turn, the Company reinforces these values by encouraging its employees to feedback to key managers and adjusting them to the needs of employees.



ACCOUNTING THE VOICE OF OUR NEIGHBOURING 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.

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.

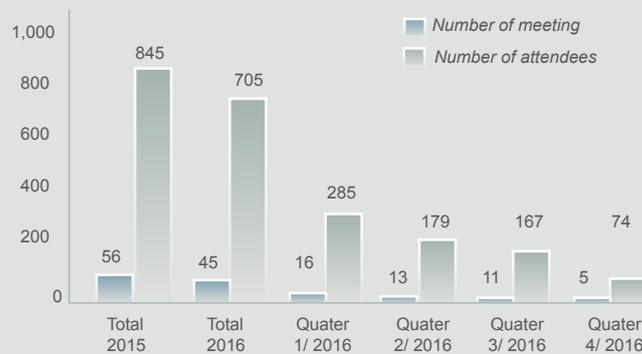


Weekly meeting with local people

In the Nui Phao project, participatory community appraisal and participatory community need assessment are daily implemented to hear the

voices of the community people and to involve them in our decision making (See more page 94).

Record of community meetings in 2016



» INTEGRATING TO A WIDER COMMUNITY



Deputy Prime Minister Vu Duc Dam makes a speech at the third Vietnam Corporate Sustainability Forum (VCSF 2016) *

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. The Company attended and successfully presented at a number of local and international in-

» WE ARE ENGAGED IN COMMON GOALS

MSR works in the spirit of partnership to archive our sustainable objectives in a sustainable and transparent way, and for a broader scale of our beneficiaries.

Our sustainability network comprises various stakeholders including governments, non-governmental organizations, development partners, the private companies and communities.

The mass organizations (Red Cross, Women's Union, Farmer's Union, Climate Protection through Energy plants (CPEP) to mention but a few) were

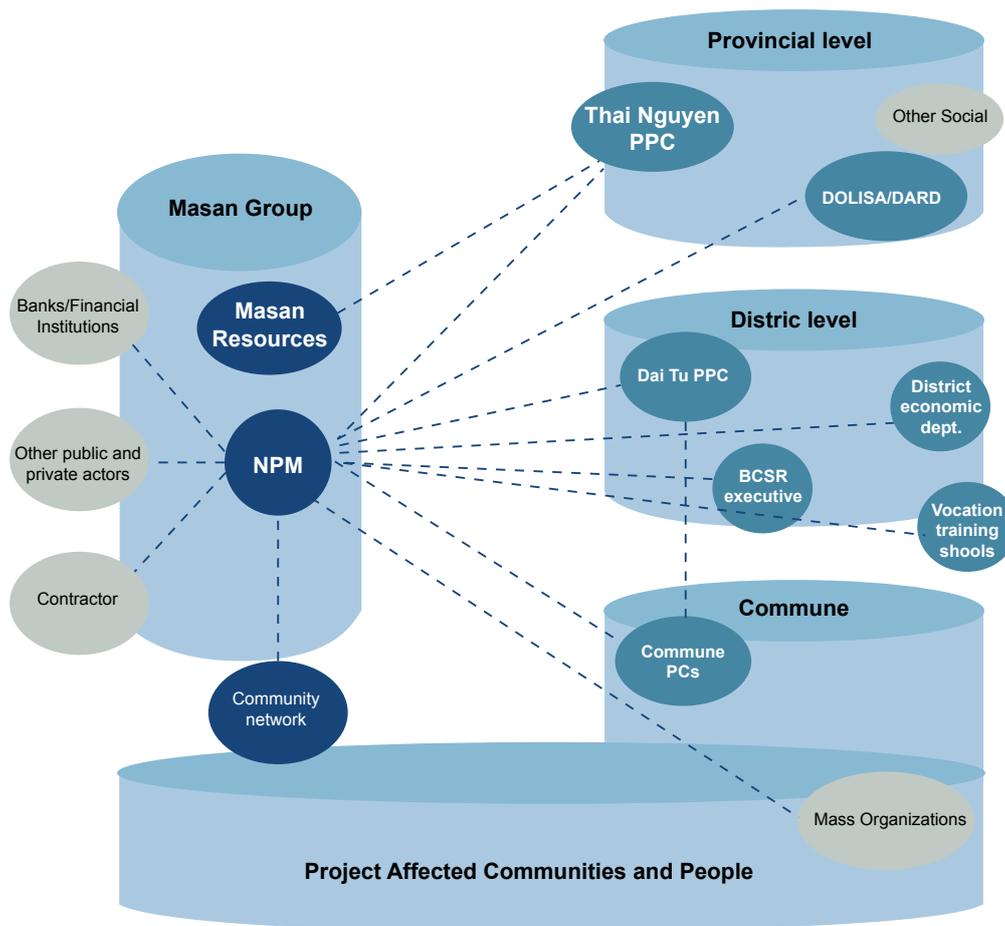
responsible in identifying gaps and social needs as well as leveraging the resources needed to make a difference in our joint-projects. In particular, in 2016 our media partners pro-actively executed their supervising role, promoting transparency and accountability of our mining operations and environment and social impact mitigation. Other governmental and non-governmental institutions such as the Social Bank and East Meets West as well as our Thinh Cuong and Khanh Hien contractors have engaged in an active collaboration for successful development models of infrastructure, micro finance and other CSR related activities.

industry forums including the Vietnamese Business Sustainability Forum in Ha Noi in November, the 7th Ganzhou Tungsten Industry Summit in March, the Argus Metals Week in London in March, the International Tungsten Industry Association (ITIA) annual conference in Stockholm in September, and the Industrial Minerals Fluorspar Conference in Toronto in October 2016.

Having worked in a number of industry associations including ITIA, Mr. Dominic Heaton - CEO of Masan Resources - 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.

* Sources: <http://dwrn.gov.vn/index.php?language=vi&nv=news&op=Hoat-dong-cua-Cuc-Tin-lien-quan/Dien-dan-Doanh-nghiep-phat-trien-Ben-vung-Viet-Nam-2016-5379>

MSR: Local network of partnerships



» SUMMARY OF STAKEHOLDERS' EXPECTATION

Stakeholders	Communication mechanism	Expectations of stakeholders	Our approach to meeting their expectations
GOVERNMENT	<ul style="list-style-type: none"> Reporting; media (newspapers & TV articles); workshops and road shows, newsletters; presentations, seminars and meetings; formal and informal correspondences. 	<ul style="list-style-type: none"> Compliance with regulations; Socio-economic development; Good governance. 	<ul style="list-style-type: none"> Investing in technology and environment protection; identification of the areas for improvement; Periodic meetings with authorities, both local and national; Cooperation with MONRE for inspections; Tax contribution, recruitment of thousands of local people; income generation through economic restoration and community support programs; establishment of local outsource suppliers; Compliance and transparency in information disclosure through various information channels: periodic reporting; regular community meetings; complaint mechanism function and open dialogues.
INVESTORS/ SHAREHOLDERS	<ul style="list-style-type: none"> Meetings (annual and one-to-one); Reports and presentations; Monthly factsheets, publications; Media (newspapers & TV articles); events. 	<ul style="list-style-type: none"> Business performance and generation of returns for shareholders; Risk management; Effective governance; Brand development and creation of new opportunities. 	<ul style="list-style-type: none"> Maintenance of low cost, innovation promotion and increased production such as productivity enhancement; improving the degree of product recovery or decreasing fuel use etc.; Disclosure of risks, impacts and management systems; High level of compliance, application of international standards in displacement, production, safety and environmental monitoring; International management team; high expertise and investment in human resources development and experienced mining crews; Annual General Meeting (AGM); Promotion and implementation of CSR and sustainable initiatives.
COMMUNITIES	<ul style="list-style-type: none"> Two way communication and open dialogues (meetings, discussions, information disclosure); Media (newspapers & TV articles); Government and authority inspections and supervision visits; Hotline function. 	<ul style="list-style-type: none"> Compliance with government policies, transparency and responsiveness; Job creation, household income; Physical and social infrastructure; Health – care, clear water and sanitation; Poverty reduction and hunger eradication; Environmental impact mitigation and compensation. 	<ul style="list-style-type: none"> Implementation of the Public Consultation and Disclosure Plan(PCDP) under the IFC guidelines; Implementation of the Economic Restoration Programs (ERPs) of the Resettlement Action Plan (RAP) prepared under the WB Social Safeguards Policies; Implementation of the Community Development Programs (CDP) under the references of the international guidelines (WB, UNDP, ICMM etc.); Implementation of the Complaint Mechanism, taking into account the voice of the community people in order to understand and timely unlock their concerns about the impacts associated with mine operations; Increased generation of the CSR and benefit sharing initiatives.

Stakeholders	Communication mechanism	Expectations of stakeholders	Our approach to meeting their expectations
PARTNERS (LOCAL ENTERPRISES, NGOS, WOMEN'S UNION, RED CROSS etc.)	<ul style="list-style-type: none"> Meetings; presentations; information disclosure system; attendance of sustainable forum; media releases and other publications. 	<ul style="list-style-type: none"> Sharing of resources (including but not limited to financial resources and expertise) – Capacity building for the competitiveness and comparative advantage of local enterprises; Shared value creation through community and regional development programmes – local infrastructure development, community health; Environmental management and compliance. 	<ul style="list-style-type: none"> Promoting partnership models such as with the Policy Bank for micro finance, the CPEP for energy tree plantation; East Meet West for the sanitation project, Red Cross for blood donation for neighbouring communities; Facility support, training and subsidized schemes of local products; Participating in national and international sustainable forums.
EMPLOYEES	<ul style="list-style-type: none"> Meetings; presentations; quarterly reports; complaints and grievance mechanism; newsletters; training programmes; relations with the trade union, employee surveys. 	<ul style="list-style-type: none"> Occupational health and safety; Training and education for development; Wages and working conditions; Remuneration and rewards; Employee motivation; Job security and opportunities and support for career development; Career transition in the event of termination. 	<ul style="list-style-type: none"> Adequate functional scheme through development of Competency dictionary for all positions in the Company; Strategic investment in capacity building; Advanced initiatives of employees' benefit packages such as health care, safety and security etc.; Performance-based salary, attractive bonus scheme such as (Monthly Star Awards, Chairman's Award – As You Deserve) as well as internal performance improvement scheme.
CUSTOMERS	<ul style="list-style-type: none"> Meetings; presentations; site visits; questionnaires; publications; events. 	<ul style="list-style-type: none"> Maintenance of low prices for products; Product safety; Quality of products; Responsible sourcing. 	<ul style="list-style-type: none"> Localisation of resources; Product quality control through quality management system; Customer oriented management; Customer satisfaction survey;
SUPPLIERS/ CONTRACTORS	<ul style="list-style-type: none"> Meetings; presentations; site visits; questionnaires; publications. 	<ul style="list-style-type: none"> Sustainability in economic performance – supply opportunities, payment process; Fairness in suppliers' contractual conditions, specifically the code for responsible sourcing and supply chain management; Contractor selection - health and safety, management procedures. 	<ul style="list-style-type: none"> Induction and training for contractors; Commitment to localisation of resources; Fair and open supplier assessment; Health and safety requirement and assessment (compliance, risk assessment); Management system to ensure fairness to prevent conflict of interest and fraud. Fair and open supplier evaluation through Supply.

» MATERIALITY ASSESSMENT

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.

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.



2016 Masan Resources Annual General Meeting

» OUR METHOD AND PROCESS

We have piloted our process for defining material aspects by identifying and prioritizing sustainability related aspects using a point-based system with regard to: value drivers, cost reduction and risk man-

agement. We have cross-referenced the shortlist of aspects with the results from stakeholder engagement to reflect their interests and concerns.

Sustainability reporting as a management process

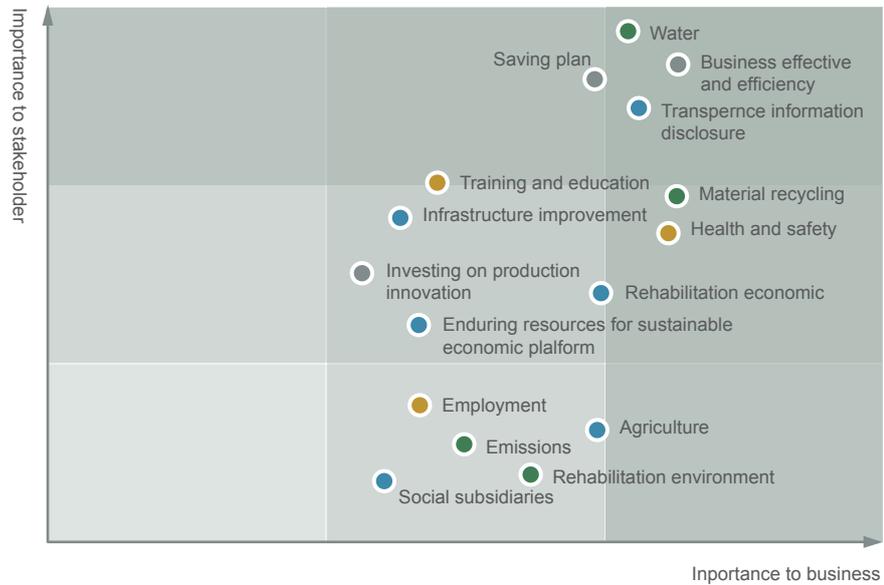
Through the reporting process, companies identify policies and systems that have to be enhanced in order to improve performance and communication in order to continuously improve our environmental and social management systems and thereby our overall business performance.

*Mr. Dominic John Heaton
Chief Executive Officer of Masan Resources*



OUR DEFINED MATERIALITY MATRIX IN 2016

The results of the process are presented in the materiality matrix, which identifies sixteen 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.



As started above in comparison with the materiality aspects in 2015, the consultation and investigation resulted to heavy identification of the needs of operational throughputs including innovation and efficiency, stabilization of productivity, improvement of our human resources potentials, the environmental and social impact resolutions in combination to the regular operational outputs such as the CSR and sustainability initiatives.

<ul style="list-style-type: none"> Focusing on business effectiveness and efficiency Investing in production innovation Saving plan in response to commodity price downturn 	<ul style="list-style-type: none"> Promoting inclusive employment Strategic investment in training and education Occupation health and safety 	<ul style="list-style-type: none"> Water source and waste-water management Waste management Material recycling Green house gas (GHG) emissions Rehabilitation Compliance 	<ul style="list-style-type: none"> Toward transparency and responsiveness Infrastructure improvement Making local experience viable Enduring resources for sustainable economic platform Better life in the Nam Song Cong relocation site Our journey to meeting the sustainable development goals (SDGs)
<p>Leadership in transformation</p>	<p>Advancing our human capital</p>	<p>Environmental compliance and beyond</p>	<p>Sustainability for all of us</p>

» SUSTAINABILITY PERFORMANCE REVIEW 2016

Area	Target	Implementation	Performance
PEOPLE	<ul style="list-style-type: none"> • 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 procedure to be further 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; • 02 Employee satisfaction surveys. 	<ul style="list-style-type: none"> • Acquisition & retention; • 3 new channels on social networks: done; • On-time recruitment service: 2 positions opened >12 weeks; • Internship Database: one job fair: done; • Success planning available: done; • Employee training & development; • Acceleration of training material development: 87%; • Acceleration of training implementation: 72%; • Online learning module available: done; • Standardization of competency framework: meet target; • Performance improvement program: done; • Employee relations; • Zero new legal case raised: None; • Two employee dialogues: done; • Employee surveys: 50%; • Trade union agreement revised: done with draft; • Supplement to labor rules and regulations: draft not register yet; • Compensation and Benefits: Done; • On time payroll process & payment. 	
HEALTH AND SAFETY	<ul style="list-style-type: none"> • 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, 3,500 BAC test and 180 drug tests to ensure fitness for work; • Establish and roll out SHEC; • Train selected staff in root cause analysis and risk management; • Roll out Management of Change safety behaviour program. 	<ul style="list-style-type: none"> • TRIFR for 2016 achieved with a TRIFR of 0.61; • Total 18,305,204 man-hours worked with 1,037 LTI free days attained; • Reached a total of 38,387 safe vehicle checks and over 174,340 BAC and 1,594 drug tests; • SHEC documents, templates and committee constitution developed. Obtained preliminary agreement from all stakeholders with roll-out set for 2017; • Rolled out JHA training to grassroots workers with awareness rolled out to selected Supervisors; • MOC training program developed and roll-out. 	

Area	Target	Implementation	Performance
<p>ENVIRONMENT</p>	<ul style="list-style-type: none"> • Complete the commissioning of the intensive WWTP to achieve better management of wastewater discharge quality and quantity; • Commence the energy crop pilot with CPEP (a German organization) on-site for three years to determine successful rehabilitation; approaches for future rehabilitation activities • Continue developing on-site nursing rehabilitation and complete the rehabilitation activities on earth-work areas completed; • Continue with participatory monitoring programs with stakeholders and community representatives as a mean of building trust and being transparent through sharing information on monitoring results with local surrounding communities; • Continue compliance with environmental laws and regulations on reporting and governance auditing. 	<ul style="list-style-type: none"> • The commissioning of WWTP is completed. The quality of waste-water discharge is increasingly improved as well as the quantity meets the discharge volume license. • Under Nui Phao and CPEP collaboration, the trial model “Planting energy crops pilot on mine site” was successfully implemented for 3 kinds of plants being the Acacia, VA06 grass and Sweet Sorghum. The harvested Sweet Sorghum and VA06 grass were delivered freely to PAPs for cow feeding. • Total 16.7 ha of disturbed and land requisition area were rehabilitated as the purpose of green-screen barrier for noise and dust mitigation, green covering for erosion protection and slope stabilization. • 85% of environmental complaints has been solved; 45 community meetings were organized with 700 participants; • There were 7 official inspections from MONRE, Environment Police Bureau (EPB), Thai Nguyen Delegation team (DOIT, DONRE, Dai Tu DPC) interested in mining, land management, explosive material, environment and water resource. In general, the inspection team assessed Nui Phao’s compliance with environmental laws. 	 <p>85%</p>
<p>COMMUNITY</p>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Construction and improvement of 02 communal roads; 01 cultural houses; • Water supply for 31 Households in Ha Thuong commune; sanitation work (toilets) for 169 households in Tan Linh commune; stable jobs created through recruitment; income improvement for 300 households through VietGap, vegetables and flower plantation; catering service and casual work for NP and contractors; • Partnership models in micro finance program, construction of cultural house and road improvement in Hung Son; sanitation program in Tan Linh and Energy tree plantation in the mine site. • Free health check and medicine for the poor and the old; Safety training for the communities; collaborated with the Company clinic for First Aid training for local officers. 	 <p>85%</p>



LEADERSHIP IN TRANSFORMATION

Focusing on business effectiveness and efficiency

Investing in production innovation

Saving plan in response to commodity price downturn

“At Masan Resources we recognize that growth must be inclusive and environmentally sound to reduce poverty and build shared prosperity for Vietnam today and to meet the needs of future generations. We must be efficient with the resources we are entrusted with and carefully plan to deliver immediate and long term benefits for people, planet and prosperity. It is in this way that we ensure we deliver sustainable development.”

Craig Bradshaw – General Director
Nui Phao Mining



Within only 6 years, we changed an empty land into a Vietnam’s first international standard, mineral processing plant of scale, capable of producing four different minerals and metals from a single ore body. We are now a globally significant player across several key industrial minerals, namely tungsten, fluorspar and bismuth.

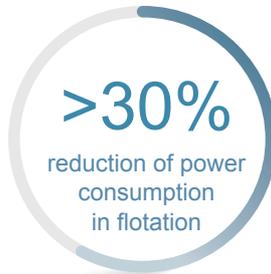
In 2016, record high production rate was once again achieved for all of the Company’s commodities. On a tungsten equivalent basis, tungsten production increased more than 26% year on year. In comparison to 2015, tungsten and bismuth production increased 24% and 51%, respectively. The increases in ore processed, recovery rates and other key plant parameters were a result of targeted capital investment projects undertaken during the year, and further increases are expected to materialize in 2017.

In 2016, after one year being listed Masan Resources was not only as one of the largest listed companies on the northern bourse, but also ranked as “Premium” on the UPCoM board, part of the Hanoi Stock Exchange.

Our tungsten chemical Joint Venture also significantly advanced the production volume and revenue of the value added tungsten chemical processing business.

In 2016, our share of the non-Chinese tungsten market increased to 36%.





▶ FOCUSING ON BUSINESS EFFECTIVENESS AND EFFICIENCY

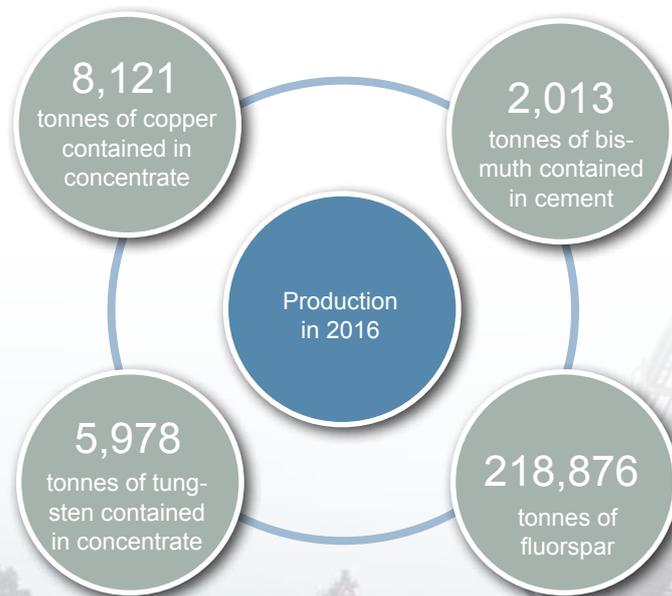


In Control room

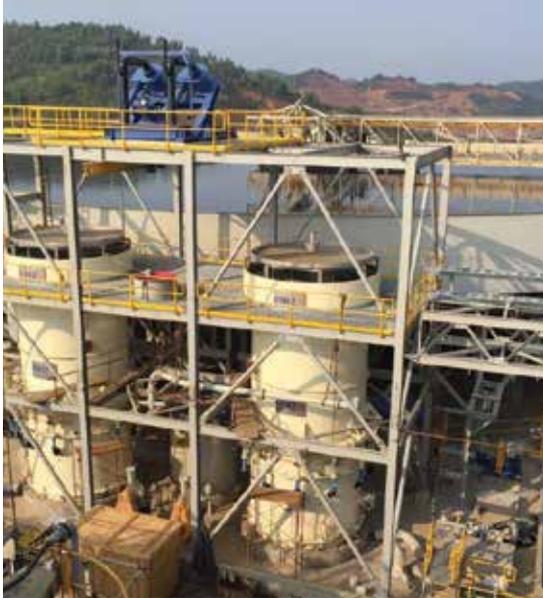
Our effective cooperation between the production and sales & marketing teams assisted the SCM team in being able to put in place a better, more efficient and cheaper stockpile management system.

Despite a year of low metal prices, we placed all our record copper concentrate production domestically, at commercial terms at the forefront of the market.

In bismuth cement, we renegotiated the commercial terms with our customer which helped improve the revenue in the current low price environment.



▶ INVESTING IN PRODUCTION INNOVATION



The Bulk Sulphide Flotation Circuit

▶▶ UPGRADING TO THE BULK SULPHIDE FLOTATION (BSF) CIRCUIT

The BSF circuit is at the heart of the process and is utilised to separate the oxide and sulphide fractions contained in the feed ore so that that can be effectively processed to recover the targeted minerals.

▶▶ UPGRADING OF THE EXISTING FLOTATION MECHANISMS

In 2016 the circuit was improved by incorporating additional flash flotation capacity, another stage of concentrate cleaning and upgrading of the existing flotation mechanisms. This greatly improved the stability, performance and separation efficiency of the circuit.

Our innovation projects of production and processing throughputs had the following positive impacts:

- Increased throughput capacity of the circuit;
- Reduction in misreporting oxides minerals such as Tungsten and Fluorite to the sulphide circuit which increases the overall recovery efficiency.
- Reduction in misreporting sulphide minerals to the oxide circuit which impede the recovery of tungsten and contaminate final tungsten and fluorite product quality.
- Reduction in power consumption across all the roughing agitators by 30% or a total of 270KW per hour.
- Reduction in maintenance consumables;
- Reduction in reagent consumption not only within the BSF circuit but other downstream circuits as well. Of particular note is flotation reagent consumption which has reduced by over 40%.



SAVING PLAN IN RESPONSE TO COMMODITY PRICE DOWNTURN

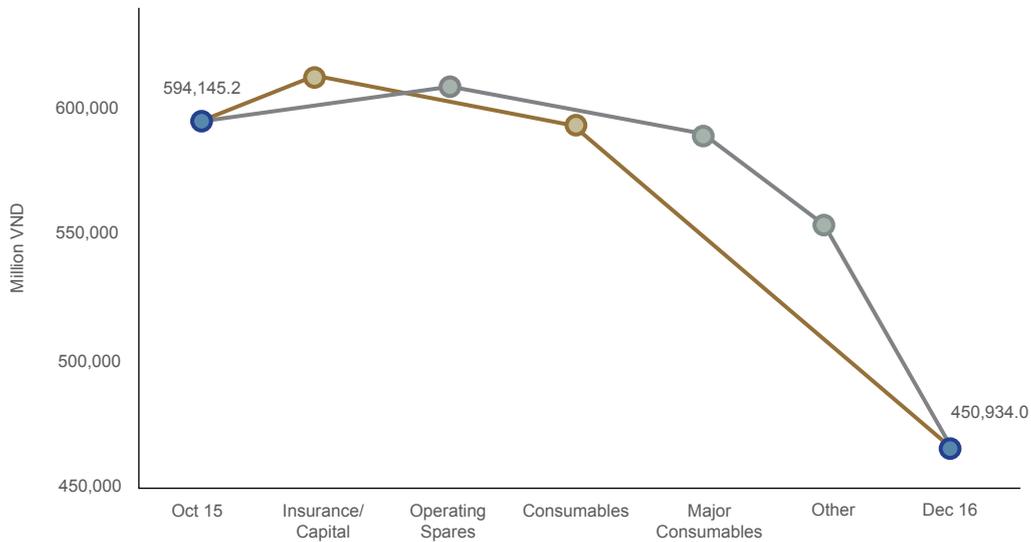
Supply chain is an integral part of the business, having a wide footprint within the various areas and inputs to the various business units. Savings focus was directed to three distinct yet key areas whilst other opportunities were also sought;

- 1 Inventory Reduction
- 2 Procurement / Forward Purchase Order Agreements
- 3 Logistics Cost Reductions

INVENTORY REDUCTION PLAN

The first action to be conducted within the inventory was to re-classify & expand the existing inventory categories, breaking the inventory into specific targets. The result of this delivered a saving to the

company balance sheet of VND 143,211.2M over the course of the year which occurred mainly through the consumption of inventory which was consumed and not replaced or required to be re-ordered.



	Insurance/ Capital	Operating Spares	Consumables	Major Consumables	Other
Increase (Million VND)	14,090	-	1,687	-	-
Decrease (Million VND)	-	22,457	-	39,067	97,392

» CONTRACTS & PROCUREMENT



The supply operations area developed an in-depth analysis and reporting tool within SAP, to review previous purchase history and purchase costs which were used to target strategic cost saving strategies.



Group working in SCM department

The contracts & procurements team conducted several important contract negotiations which were concluded in the first quarter, yet worked tirelessly over the year working on a number of further saving opportunities.

Coupled with the sell-off of used equipment, high-value scrap sales, redundant equipment and negotiations conducted with vendors for forward purchasing agreements, a further combined total

savings of over VND 113,300M was achieved between the respective teams.

A major process improvement occurred with the development of a digital Application for Payment [AFP] process & approval flow to be conducted within SAP. Actions previously undertaken manually were prone to errors. This new process has streamlined and improved the way that invoices are delivered to accounts payable.

» LOGISTICS

Logistics worked on 3-key strategic areas to reduce costs and provide tangible savings for the year; the execution of Stage-I of the Long Term Bulk Product Strategy, the commissioning of the fluorspar conveyor and the tax savings initiative based on COO (Certificate of Origin) documentation delivered a combined saving of VND 45,366M and are summarized below;



Shipment activities

Initiative	Activity	Saved (Million VND)
Fluorspar long term warehousing strategy (Stage-I)	Fluorspar freight	23,256
	Fluorspar warehouse rentals	8,469
Fluorite containerized export	Site based container stuffing	3,726
COO from APAC & ASEAN	Tax savings	8,794
Other savings	Equipment hire, bismuth freight etc;	1,121
Total		45,366

SUPPLY CHAIN MANAGEMENT





ADVANCING OUR HUMAN CAPITAL

- Promoting inclusive employment
- Strategic investment in training and education
- Occupation health and safety

Number of employees and average income (*)	2014	2015	2016
Total number of employees	1,095	1,095	1,027
<i>Vietnamese</i>	976	973	928
<i>Expat</i>	119	122	99
Average income VND million per month for Vietnamese employees	9.7	10.2	10.7

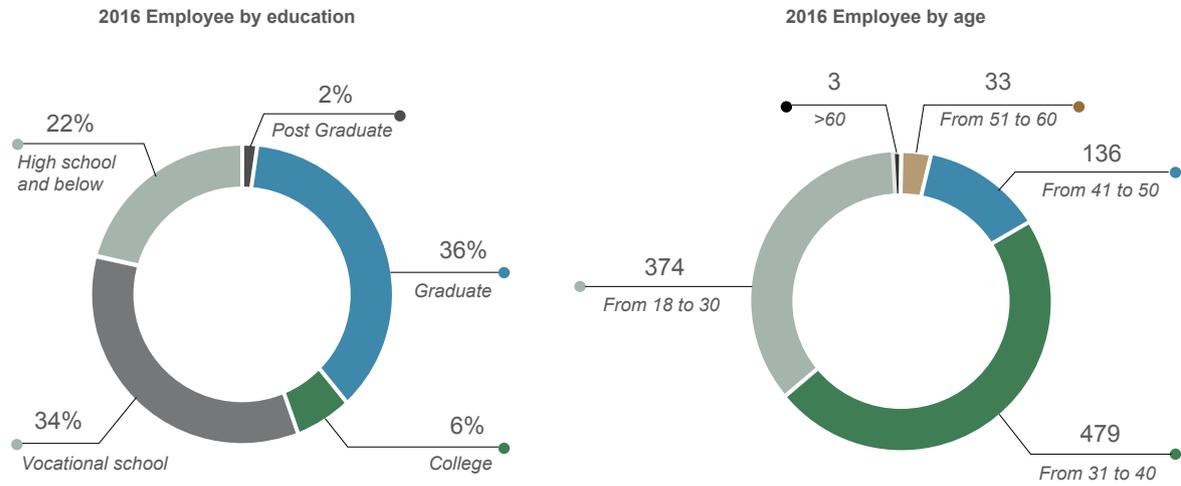
(*) Exclusive of the Joint Venture

MSR sees Human Resources (HR) as a vital part of the organization, and invests heavily in the development of the capability and performance of its personnel. The present form of HR reflects the original vision of our parent company, Masan Group, which believes that the experience, expertise and dedication of HR is a competitive advantage of the Masan Brand.

As a result, one of the most notable accomplishments attained this year was the implementation of the employee training program, MSR Academy, which forms one component of a greater, strategic development project currently undertaken by MSR. In order to provide more effective service, we encourage and empower every employee to achieve their full potential through our performance appraisal and reward programs.

In 2016, an amount of VND 3 billion was spent on HR development, in the form of internal and external capacity building training programmes.





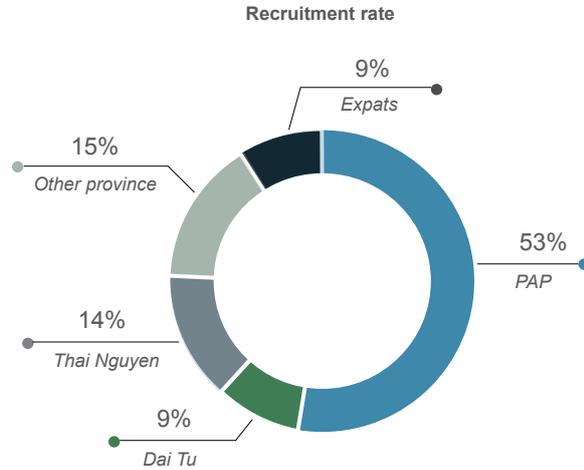
▶ PROMOTING INCLUSIVE EMPLOYMENT

MSR regularly reviews HR's workforce recruitment approaches to ensure that a broad and diverse set of potential candidates is reached. We follow the hierarchical approach, where employment priority is first given to local community members, whether they are affected directly or indirectly by the project, followed by the residents of the district and province where our operations take place and then to Vietnamese nationals, in order to maximize the economic benefits to the local community.



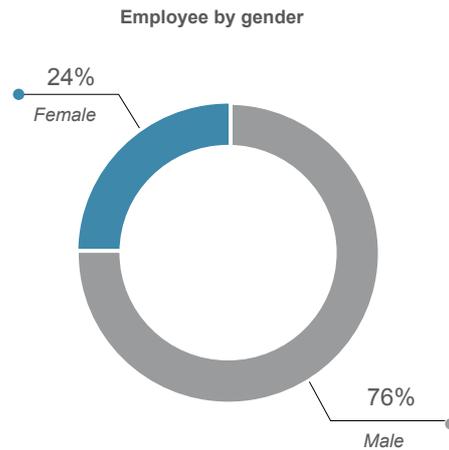
» PAPS GIVEN FIRST PRIORITIES

As a result of these policies, local population makes up more than 80% of the total workforce of MSR in 2016. In particular, there were 589 project affected people (PAP) working for the Company, (53% of the total employees), among which there were 113 employees from 6 different ethnic minorities (Tay, Nung Dao, Cao Lan, San Chi, San Diu).



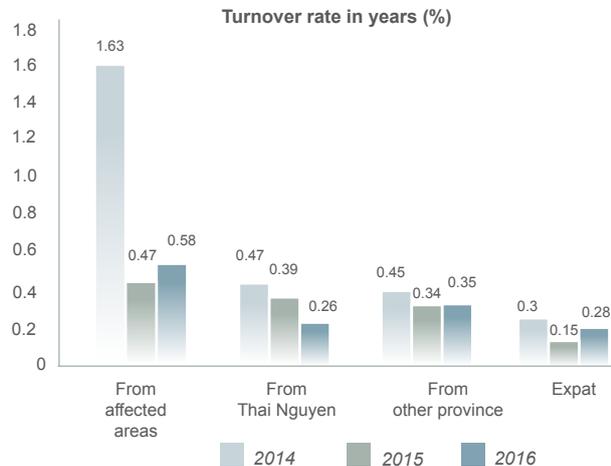
» GENDER INCLUSIVE

MSR strongly pursues equal employment opportunities for men and women. The Company has implemented proactive efforts to recruit and retain female employees and make the workplace a safe place for women. The percentage of our female workforce is among the highest in the mining industries (24%). Some research shows that female employees occupied about 14.7% in the mining industry worldwide.



» STABILIZED WORKFORCE

With the stabilized workforce, the recruitment activities in 2016 focused on the replacement of the retired people and cases of people with poor performance. The rate of contract termination in 2016, compared to the market conditions is relatively low, as shown in the graph below.



STRATEGIC INVESTMENT IN TRAINING AND EDUCATION

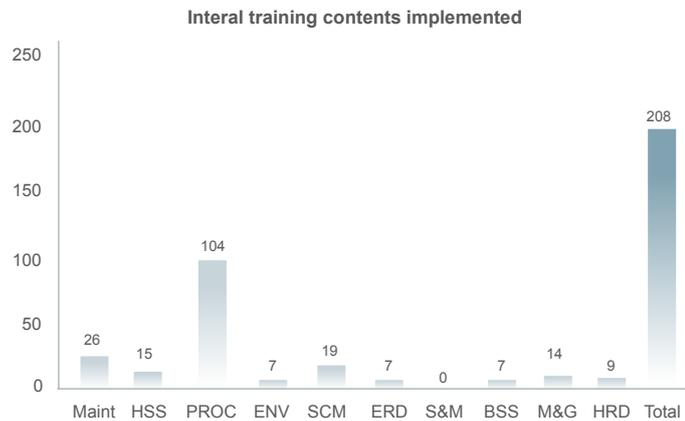
As stated in the introduction, training, educating and providing development opportunities to our staff so that they can fulfil their full potential is viewed as one of our strategic activities to materialize the vision of MSR.

In 2016, 1,200 training documents have been developed for our internal and external training courses.

INTERNAL TRAINING

The development of internal training documents and streamlining our internal processes is one of the key components of our HR development project, which is only set to gain importance in the coming years.

Our training and coaching content is built on a competency assessment of every individual position. With the help of experts from various departments, we have now built a database system of 408 documents, comprising courses, procedures, training documents and support tools.



Our MSR Academy

Masan Resources is aware that human capital is a key differentiating factor between successful and unsuccessful companies. This need for staff training and development gave rise to the creation of the concept of MSR Academy.

Senior managers, experts and experienced supervisors have performed their duty as educators, coaches and trainers for our internal training programs.

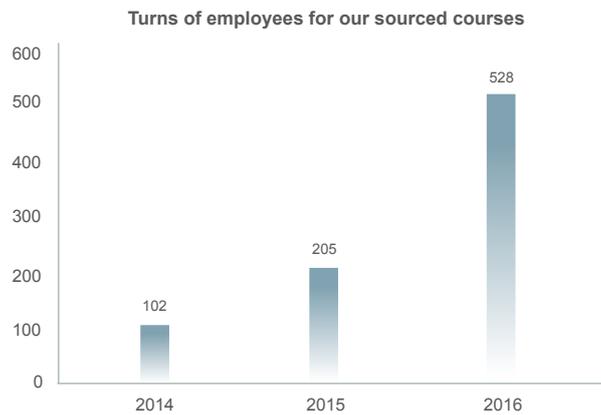
Out of the 408 training documents created in our own internal database, 208 have been implemented in 2016.



» SUBJECT-BASED TRAINING

Subject based training is essential for advanced industries with the aim to increase subject expertise on a specific topic or range of topics.

In 2016, MSR in partnership with various universities and training institutions, have provided a range of long and short courses for our employees. 528 employees including senior supervisors, staff and junior staff have attended a variety of subject-based training courses, compared to 250 people in 2015.



E-learning programs: self-studying is encouraged

Through the internal network (intranet), employees can self-arrange attendance to a specific course and improve their learning abilities. Thus, the personality, soft skills and personal abilities of each employee will be improved in order to deal with a variety of challenges at work.



» RESULT-BASED PERFORMANCE MANAGEMENT

Our performance improvement program aims to ensure that all employees focus their work efforts towards achieving company objectives through our result-based performance evaluation, followed (consolidated) by our additional and targeted training programs.

In 2016, a result-based performance scheme has been completed and applied to all employees. Accordingly, 76 among 87 employees, who were found to be under poor performance or lacked of required skills, have completed the performance improvement program with positive results.

The performance development program is based on several factors such as annual evaluation, tracking accomplishments against objectives to determine corrective actions or appropriate training courses to improve employee's performance and individual growth.

In addition, the planning and implementation of the leadership and human development programme is currently underway and will be our focus in 2017.

Proud to be a Monthly Star

Our Nui Phao Stars programme is designed to encourage actions that promptly recognize individuals / teams with an outstanding monthly performance to develop a positive, safe and cost-saving work environment while consolidating our core values of Respect, Action and Results. We are proud to have selected 21 stars in 2016.



"...working in a dynamic environment as MSR, we understand that in certain circumstances, we need to break with traditional professional boundaries and be more creative and flexible in our work"- said by a star-rewarded-employee.

Competency framework

In a working environment of MSR, which is diverse, complex and dependent on high technology, competency frameworks help us to plan, manage and develop employees.

The completion of MSR competency dictionary proved to be essential in remaining our position as one of the lowest - cost mines in the world. This is, in great part, due to our policy of "putting the right person in the right position", supported by appropriate training and education.



"In this respect in 2016, 1,200 documents related to training on overall company operations have been classified and assigned to every employee occupying a functional position." - said by Dang Xuan Ngoan - HR Manager.

HRD OPERATIONAL READINESS



▶ OCCUPATIONAL HEALTH AND SAFETY

MSR management has made a significant commitment to ensure safe working conditions for our workers and has developed and implemented various standards and management systems for the day-to-day and long-term execution of our health and safety policies.

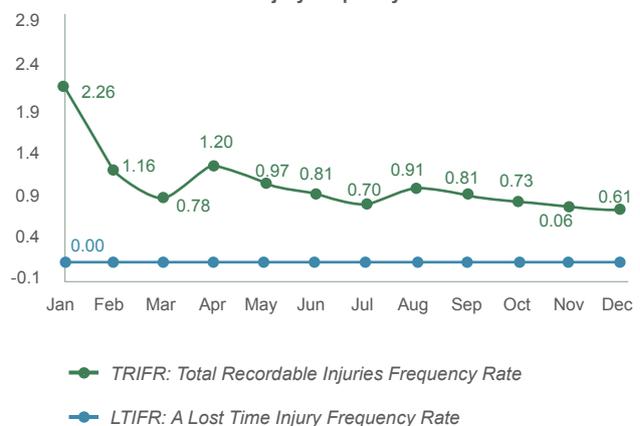
2016 was a remarkable year for health and safety, achieved by mindful management of our work activities and safety leadership behaviour.

» BECOMING THE BEST MINE SAFETY PRACTICES

This year was noteworthy in the sense that there were no fatalities, no lost time injuries (LTI), coupled with a reduction in behaviour based incidents.

These milestones can be attributed to the extensive safety and health training programs that were tailored around corrective safety behaviour - centred around our workforce embracing a culture of safety both at work and home.

NPMC YTD Injury frequency rate 2016



Being recognized

Our mine site was audited by various key governmental departmental in 2016, for example DOL-ISA, DOIT, the Bureau of Fire Department (Fire prevention and loss control), Police Department (auditing security and asset control on the site), and Vietnam Agency for Radiation and Nuclear Safety (Varans) which, under the auspices of the Ministry of Science and Technology, conducted radiation audits as well as held a collaborative National radiation drill on the Nui Phao mine site.



Having "Ocsafe" as parameter

Since 2015, all incidents are lodged in our own electronic "Ocsafe" incident management system, which is used for safety monitoring, supervision and audit purposes. The Ocsafe database lodges and records all known incidents that have occurred on Masan Resources controlled sites such as accidents, injuries, environmental incidents, security breaches as well as near-misses.

Furthermore, to regularly monitor the trend of incidents, the company generates a monthly injury frequency rate graph that covers minor to serious injuries that have taken place at the workplace. This helps identify problem areas and potentially high risks at the site so that appropriate remedial actions can be implemented to lower and or eliminate such risks.

LTIFR:

A lost Time Injury Frequency Rate (LTIFR) is defined as an occurrence that resulted 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.

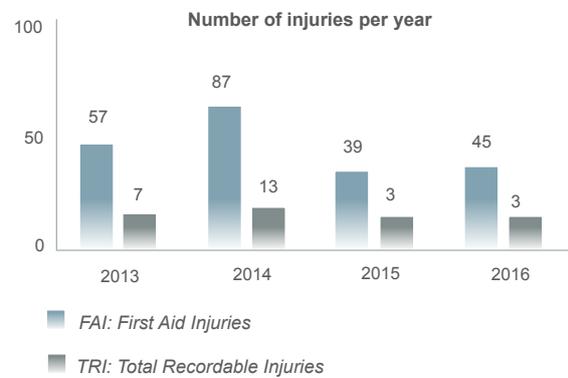
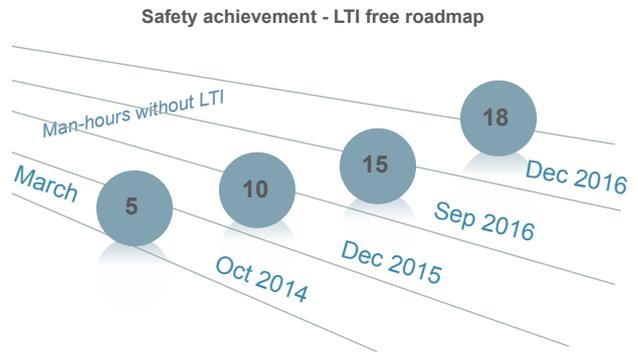
SAFETY REGULATORY COMPLIANCE

During the year compliance with several safety regulations were achieved; in particular, HSS team was awarded a compliance certificate on fire operations for the mine site.

In addition, several Government audits conducted throughout the year resulted in positive outcomes with constructive improvement actions.

This year, our workforce celebrates in achieving 18,305,204 man-hours equivalent to 1,037 days worked without a lost time injury and fatality free. The previous record was 5,605,059 man-hours lost time injury free. We have exceeded the last record by 12,700,145 man-hours worked.

This exceptional safety performance can be attributed to the establishment of a prominent safety culture that is always present at our mine site.



Rolling TRI frequency rate 2014-2016



TRIFR:

Total Recordable Injuries Frequency Rate (TRIFR) includes fatalities, lost-time injuries and injuries that required restricted work activities or medical treatment. The frequency rate is determined by the number of occurrences per 1,000,000 hours worked.



» SAFETY TRAINING AND COMMUNICATION

Proper communication about safety and safety related issues to all employees and contractors is of paramount importance for obtaining a high level of safety compliance.

A total of
26
 fundamental safety alerts

are readily available to all employees and contractors as a softcopy available from the Company's intranet site and also displayed on notice boards. The alerts cover latest health notices, notifications of high potential incidents that have occurred or general safety topics, such as using a certified motorbike helmet when riding a bike, as an example.



A total
3,764
 employees and contractors
 have attended a total of
6,150
 hrs of internal safety training

those include Safe Work Isolation Procedure (SWIP), Job Hazard Analysis (JHA) and other general safety inductions related to shut-down, mining and visitors.



Training on hazardous chemicals management, site inductions, in-house safety programs such as hazard identification and actions, risk training, management of change and emergency response training was also provided.

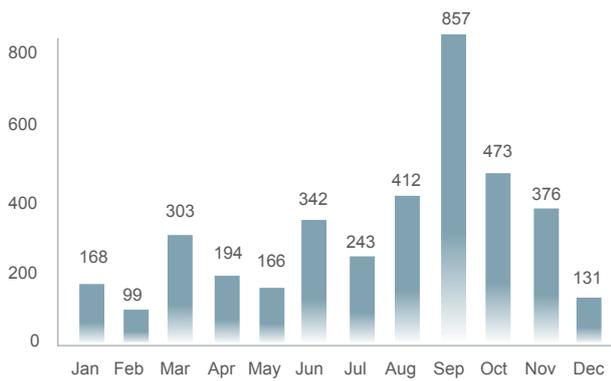


The training on a safety concept tool, Take 5, which teaches employees and contractors how to identify potential hazards associated with their tasks, was also continued.

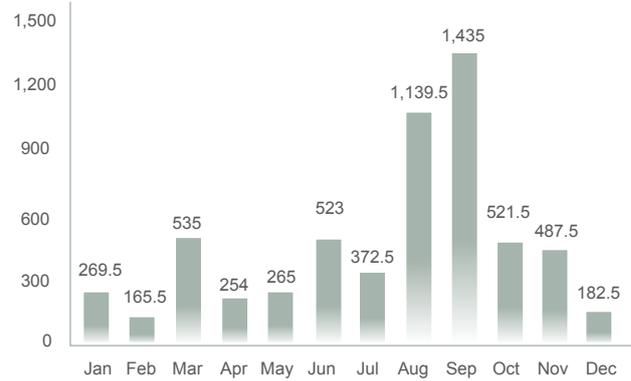
In 2016, **7,459** employees were trained, which favourably compares with the number of 3,852 personnel trained in 2015.

We have also carried out an extensive Safe Work Isolation Procedure training (SWIPS) in order to equip employees with positive safety habits not only to be used at work but also to help them carry this mindset throughout daily activities.

Number of attendees 2016



Safety training hours 2016



Security control center in 2016:

- 12 CCTV surveillance cameras
- 720 Emergency calls
- 5,037 Asset control movement forms
- 5,400 Visitor registrations
- 24/7 Control room staffed by two Controllers and a Security Officer
- 102,564 motorbike and 545 vehicle access permits issued



» SECURITY AND SAFETY CONTROL

Our Security asset protection department has continued to provide a safe working environment for the workforce. In 2016, a total of 39,353 individual belongings searches were performed and 38,387 vehicles and trucks were searched.



Performed breath alcohol concentrate (BAC) testing

Partnering for safety culture

Partnering with DOST: The first large scale National Radiation drill ever to be held in Vietnam

In the 3rd quarter of 2016, the Company hosted the first ever National Radiation drill on our mine site that involved several sections of the Government. It showcased the professionalism of our employees in managing exposed radiation sources during the event. The event was broadcasted on the national channel.

Partnering with Provincial Fire Department of Thai Nguyen: safety awards for achieving excellence in safety

The Emergency Response Team (ERT) collaborated with the Provincial Fire Department of Thai Nguyen in conducting several fire drills on site that included training in hazard materials management, vehicle extraction, confined place rescue, high-angle rescue, flood disaster management.

The ERT also participated in the Provincial Fire Fighting Rescue Event and came 9th overall in the practical competition.



» PUTTING PEOPLE FIRST: OUR HEALTH-CARE EXCELLENCE

One of the main and important issues of the Company is to ensure that our workers are not exposed to occupational hazards that negatively affect their health, but also to reassure the workers that the Company has a well-equipped, capable medical team who are well experienced in supporting not only their health and wellbeing but also that of the broader community.

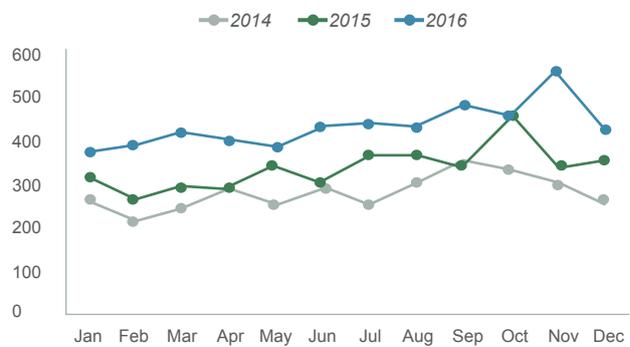


Medical examination at the Company's health clinic

Improvement of health-care facilities

In 2016 we strengthened the diagnostic capacity of our clinic by acquiring and upgrading our medical testing equipment. The new equipment includes a multi-analysis urine testing machine, several ENT examination tools and sensitized violet lights for therapeutical treatment. We also make sure that we have an appropriate amount of medical supplies and consumables.

Number of clinic patient visits - 2014, 2015, 2016



Potential occupational health risk management

General health check

Our health check includes several tests, such as blood analysis, urine tests, chest X-rays, abdominal ultrasound, lung functionality testing, audiometry, cancer markers tests as well as a vaccination program that includes Measles-Mumps-Rubella (MMR) and seasonal Flu vaccinations.

Occupational hygiene control

Quarterly monitoring of the working environment in potentially high-risk areas is conducted by our Occupational Hygienist as well as third party agencies as a means of control.

Furthermore, several facilities are subject to weekly and monthly food hygiene and safety inspections such as site canteens, kitchens, company hired hotels and guest-houses.

Occupational health monitoring

The Occupational health monitoring program assesses potential health risks relating to noise, dust, air pollutants, water, food hygiene and safety.



Medical training

A total of **105**
employees and
contractors

were provided advanced first aid training under the auspices of the American Heart Association. These certified courses covered choking, cardio-pulmonary resuscitation (CPR), hemorrhage, fractures, allergies, stroke and burns management.

A total of **63**
persons

were given advanced training on fatigue management. Our health awareness and health promotional programmes continue to be rolled out and cover potential illnesses and how to prevent these illnesses.

A total of **483**
persons

participated in hearing protection awareness and 657 persons were inducted with lung protection awareness.

Partnering for a healthy society

In 2016, we helped

67 community patients

with severe illnesses and trauma. Of these 67 medical incidents, 27 were accidents that happened on the National Highway near our mine site. This year, one of our doctors received an award for excellence and creative working from the Trade Union of Thai Nguyen Province.

In line with our commitment to the wellbeing of our people and local communities, a blood donation campaign was launched that resulted in

122 blood donors

Furthermore, several agreements were signed with the Government and private hospital facilities to provide additional medical treatment for our workforce. We have also closely liaised with governmental health organizations throughout the year, such as Dai Tu District Health Center and the Health Department of Dai Tu District, the National Institute of Occupational and Environment Health, Thai Nguyen Preventive Health Center and the Thai Nguyen Department of Health (DOH).

To reduce site emergency risks and as well as aid the community, the Company has ensured that a fully-fledged ERT are on site and available 24/7. Our Medical Doctor and Nurses team, equipped with emergency care equipment are authorized to provide rapid emergency care to injured persons involved in all manner of accidents.

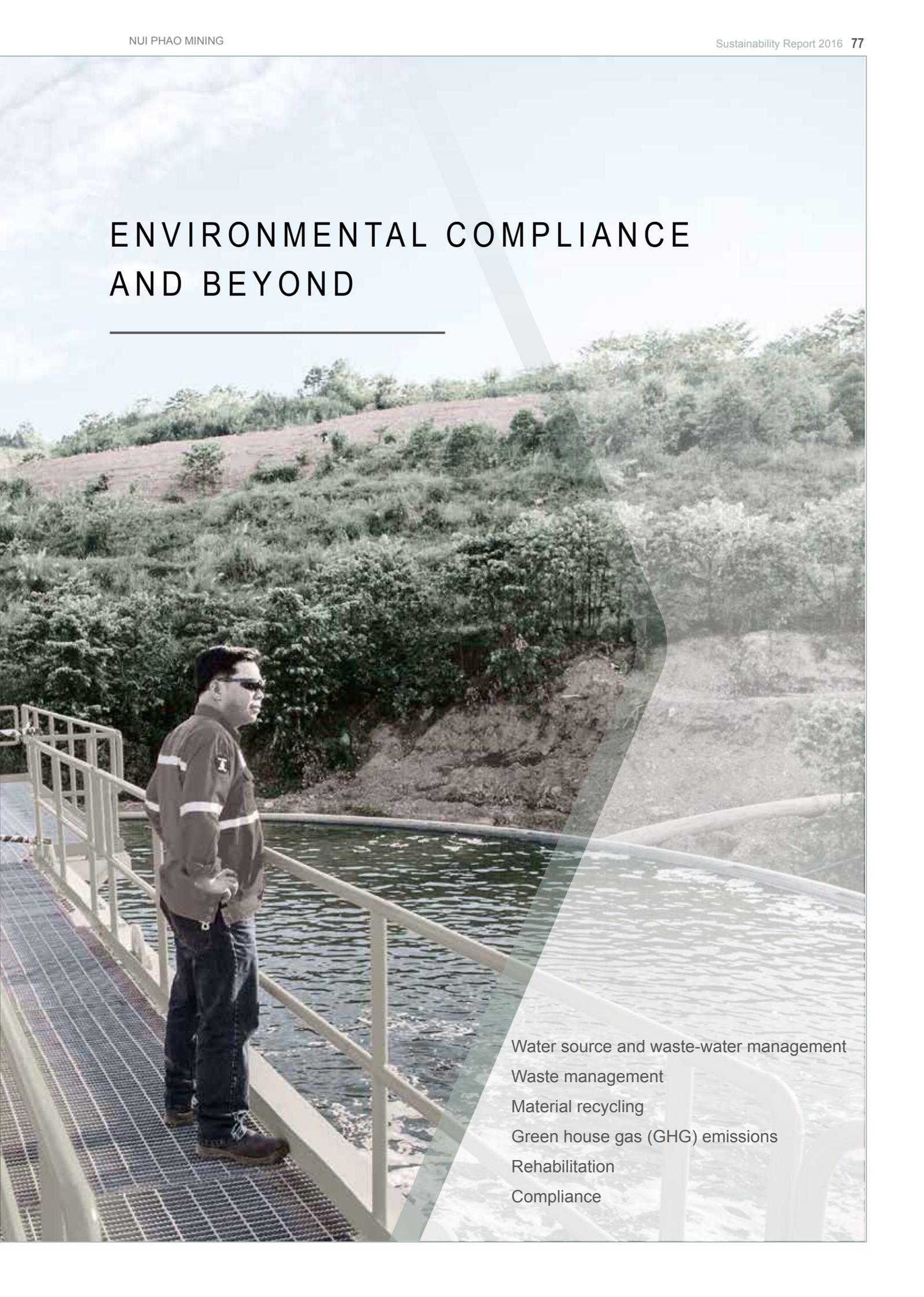


HEALTH AND SAFETY

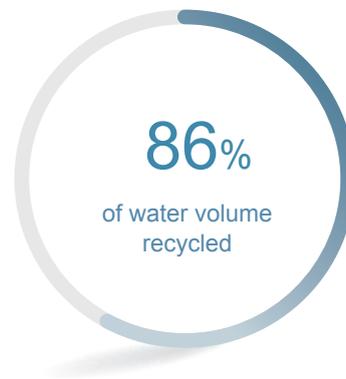




ENVIRONMENTAL COMPLIANCE AND BEYOND



- Water source and waste-water management
- Waste management
- Material recycling
- Green house gas (GHG) emissions
- Rehabilitation
- Compliance



In Masan Resources, we have redoubled our attention and efforts to meeting, and often times exceeding, environmental standards. We want to ensure that the Nui Phao project will become the role model for Vietnam's mining industry. From the very beginning, we have based our standards on those of the World Bank called the Equator Principles, which is the "gold standard" for social and environmental sustainability for mining projects.

We believe that sustainable development is an important matter and from the very start Masan Resources has implemented high standards in the following areas:

- We have adopted the most stringent standards for monitoring Nui Phao's impact on the local environment and communities;
- We have placed great emphasis on the reduction of water usage as guided by the directives put forth by the World Bank;
- We have measured our waste water treatment practices in order to identify ways to further reduce environmental impacts;
- We have increased the amount of recycled hazardous waste (chemical tanks) and;
- We have stepped further in rehabilitation by our partnership with international agencies.





▶ WATER SOURCE AND WASTE-WATER MANAGEMENT

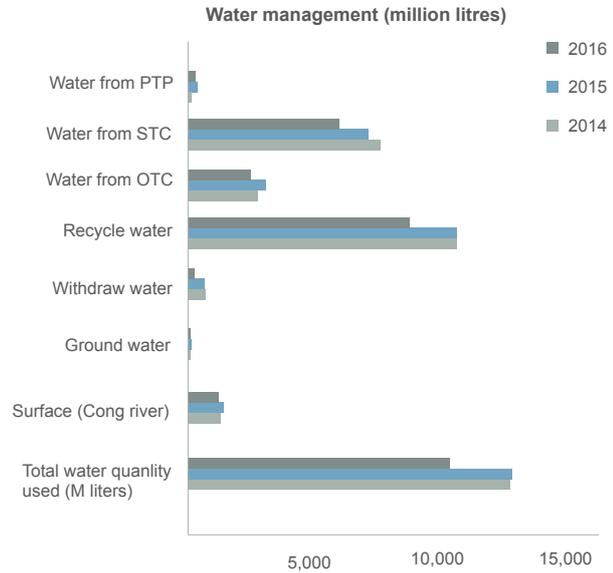
Water source and waste-water management in industrial zones, in general, is of great importance in the implementation of sustainable development policies. This is particularly true for the case of the Nui Phao project, which aims to create economic benefits to its stakeholders, by considering its effect on the environment.

Nui Phao is guided by the directives put forth by the World Bank, which places great emphasis on the reduction of water usage. In this respect, Nui Phao endeavors to reduce the volume of surface water extraction from the Cong River and ground waters, but it also heavily invests in increasing the amount of recycled water from the TSF dams, reservoirs and continuously improves the overall management process in order to optimize the water resources usage.



Currently, there are 4 main water sources used to serve the day-to-day operations of the Processing Plant: surface water (Cong River), ground waters, withdrawn water and recycled water.

The total volume of extracted water of 10,978 M liters in 2016 compares favorably to the total volume of extracted water of 12,586 M liters in 2015, while the capacity of the Processing Plant has remained unchanged. These figure total volume of extracted water and water usage in 2016 has decreased significantly compared to 2015, which lines up very well with our core values: **“Respect - Action - Results”**.



	2014	2015	2016
Total achieved water (million litres)	12,528	12,586	10,978
Raw water (Cong River water)	1,332	1,416	1,259
Ground water	84	93	48
Withdrawn water	718	644	281
Recycled water	10,394	10,433	9,390
-Oxide Tailing Cell (OTC)	2,708	3,040	2,597
-Sulfur Tailing Cell (STC)	7,521	7,043	6,497
-Pit Transfer Pond (PTP)	165	350	295



» SURFACE WATER

The demand for raw water by our Processing Plant is principally met by extraction from the Cong River, with the license capacity of 4,800 m³/day. In compliance with the regulations, we are extracting water through the pump station where the total volume of the extracted surface water makes up approximately 11.5% of our raw water demand.

In 2016, the total volume of surface water extraction was 1,259 M liters (including water supplies provided to the community for irrigation purposes), compared to 1,416 M litres in year 2015. This year-on-year decrease in the volume of extracted surface water reflects our commitment to effective water usage for Processing Plant operations.

» RECYCLED WATER

Nui Phao is strongly committed to optimum usage of water needed for the processing operations, in order to minimize negative environmental impacts, while providing economic benefits to all stakeholders. In 2016, Nui Phao recycled 9,390 M liters against 10,433 M liters in 2015, meeting 85% of the total water supply needed by Processing Plant. This is in-line with our commitments, guided by the World Bank recommendations, to reduce reliance on extracted water, increase water reuse and continuously improve the waste-water management capabilities in OTC, STC and the reservoirs.

» GROUND WATER

Our ground water is extracted from two licensed boreholes, NP-P15 and NP-TC, with the license capacity of 292 m³/day. We extracted 48 M liters in 2016, compared to 93 M liters in 2015.

» WITHDRAWN WATER

In May 2016, Nui Phao stopped ground water extraction in TW01A, due to technical issues with the submersible pump. In November 2016, Nui Phao was granted a new extraction license by the Thai Nguyen PPC and placed TW01B1 into operation to replace the broken borehole (TW01A) with the same licensed capacity of 2,900 m³/day. A total of 281 M liters of withdrawn water was extracted in this way in 2016, compared to 644 M liters in 2015.



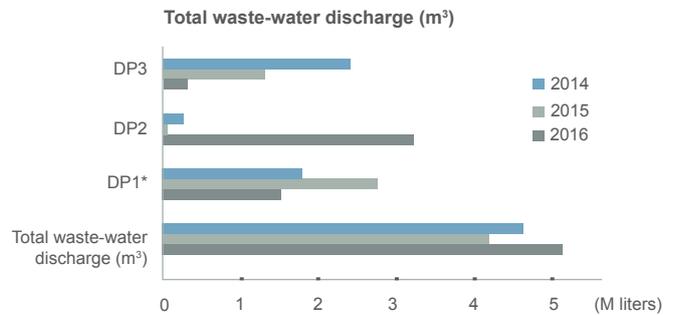


DISCHARGE WATER

In 2016, our WWTP completed the commissioning period and is now fully operational. The discharge quality of the WWTP meets the standards regulated in the waste-water discharge license.

To increase the efficiency of waste-water treatment in WWTP, Nui Phao is tightening water quality control measures. For example, the chemical processes in the waste water management are optimized for minimal chemical residues, an “aerated water-fall” was constructed and a paddle water and oxygen turbine was installed in the STC.

All water processed by the WWTP is discharged into the environment through our 3 licensed discharged points: DP1, DP2 and DP3, all located in the upper part of the Thuy Tinh stream – Ha Thuong commune and Cat stream - Phuc Linh commune. We have installed hydrological monitoring stations in each discharge point. The total volume of discharged water was 5,128,544 m³ in 2016, against 4,196,347 m³ in 2015, which is a reflection of the improved waste-water treatment capacity of the WWTP and also our efforts to minimize water storage in OTC, STC as well as to reduce water pressure on dam walls and improve the safety of the dam.



* : From May 2016, DP1 was not used to discharge

	2014	2015	2016
Total waste-water discharge (m ³)	4,635,416	4,196,347	5,128,544
DP1	1,859,284	2,781,106	1,642,420
DP2	348,400	32,487	3,165,849
DP3	2,427,732	1,382,754	320,275

WASTE MANAGEMENT

All kinds of waste generated from the daily processing operations are collected, transported and handled in accordance with the regulations. Hazardous waste is transported and disposed at the appropriate disposal facility by licensed contractors. Domestic waste is transported to landfills by a local, licensed contractor.

In 2016, we disposed a total of 1,091.6 tonnes of waste, which includes 447.6 tonnes of hazardous waste, compared to 430.5 tonnes of hazardous waste in 2015.

	2014	2015	2016
Hazardous waste	623.9	430.5	447.6
Domestic waste	661.5	567	644
Total (tonnes)	1,285.4	997.5	1,091.6

MATERIAL RECYCLING

Our aim is and has always been to recycle as much as possible so as to minimize our environmental impact. All new employees are required to attend an induction course, intended to introduce them to how to recognize waste, how to sort and manage waste.

In this regard, we aim:

- To enhance the re-use of clean soil/waste-rock for dam construction activities and internal haul-roadworks to balance the load on the waste-dump.
- Putting to good use recycled scrap. The recycled scrap includes steel, iron, rubber, plastic and paper. The scrap is collected in the waste transfer yard and then sold to licensed contractors. A total amount of 683,100 kg in 2016 was sold to scrap merchants (compared to 502,020 kg in 2015). The increase is attributed to the efficiency of recovery and classification.
- Collect and recycle of office waste, such as office paper, cans, bottles and plastic pipes. In 2016, 545 kg of office waste was collected.
- Collect and transfer all hazardous waste for recycling. A total amount of 29,300 kg of chemical waste was recycled in 2016, compare to 6,150 kg in 2015. The high recycled amount assisted the cost reduction for hazardous waste disposal.

In 2016, the Company commenced dismantling redundant equipment and facilities. Non-recyclable material was disposed of by licensed contractors while recyclable material was provided to the social welfare charity including Thai Nguyen Center of social protection, Handicapped school of Thai Nguyen and Tan Linh Kindergarten.



Waste collection on the World Environment Day (June 5th)

The OTC tailings will be recycled into a construction material (grey brick), in accordance with the guidelines of the State and consent of Ministry of Natural Resource and Environment. Recycling OTC tailings brings about various benefits, such as:

- Minimization of the industrial waste storage and disposal in the OTC dam helps reduce the cost of waste management.
- Minimization of environment risks
- Economic benefits to all parties involved in the recycling process.



A corner of Tailing Dam

GREEN HOUSE GAS (GHG) EMISSIONS

GHG emissions (tonnes of CO ₂)	2014	2015	2016
Total GHG emissions	68,619	109,618	128,500
Direct GHG emissions (SCOPE 1)	31,436	23,873	22,627
Gasoline	371	199	137
Diesel	31,064	23,674	22,490
Indirect GHG emissions (SCOPE 2)	37,183	85,744	105,873

DIRECT GHG EMISSIONS (SCOPE 1)

Our direct GHG emissions are generated by the gasoline and diesel consumed by vehicles, equipment and back-up generators. In 2016, we emitted 22,627 tonnes against 23,873 tonnes of CO₂ in 2015. This significant decrease evidences our commitment in cutting down GHG emissions.

INDIRECT GHG EMISSIONS (SCOPE 2)

We consume main power from the national power grid through our 110kV sub-station. In 2016, we consumed 187,154 MWh of electricity, which is equivalent to 105,873 tonnes of CO₂, while in 2015 our electricity consumption was 151,572 MWh, which is equivalent to 85,744 tonnes of CO₂. The power consumption increase reflected the installation of supplementary production lines in 2016, needed for a stable operation of the mining activities.

REHABILITATION

Our environment rehabilitation has activities are implemented in parallel with the construction and mining operations and are expected to continue until mine closure.

In 2016, we entered collaboration with CPEP for a period of 3 years (2016 – 2018) with the aim of evaluating the planting of energy crops on the mine site. The plants selected for this purpose included Australian acacia, Sweet sorghum and VA06 grass. The first harvested production (VA06 grass and Sweet sorghum) were provided freely to the community as the feed for their animals and a part of VA06 grass harvested has been planted on the slope of a 1.5 ha waste dump for testing and evaluating adaptability, environmental rehabilitation in the future. The results will be available in 2017.

The Company also collected an estimated 1,5 tonnes of local grass seeds which will be used in the rehabilitation works on the slope of the waste dump and other areas. Further, in 2016 Nui Phao rehabilitated an estimated area of 16.7 ha, by planting trees to act as a green and noise barrier but also for the mitigation of dust, generated by the mining operations. Nui Phao also aims to rehabilitate the old, tailing waste dump contaminated soil on the southern side as part of its Community program.

Finally, we have also placed 326 Vetiver grass rafts (652 m²) on PSRP, TSF-SP and the Wetlands to improve waste-water quality. This measure is biologically and environmental friendly and is popular among mining sites.

Rehabilitation and recycling

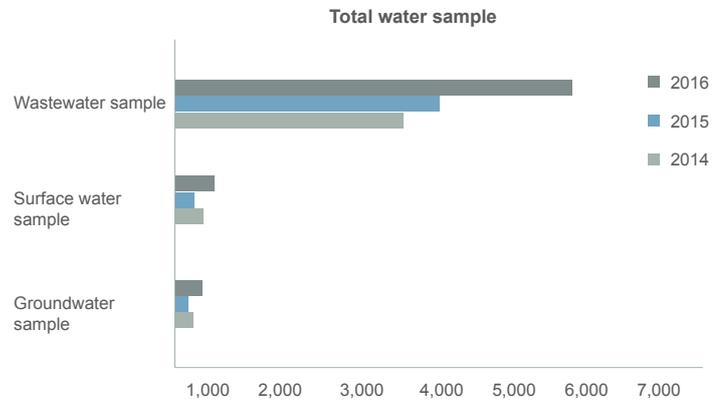
CPEP (Climate Protection through Energy plants) and Thai Nguyen University to implement the trial model of planting energy plants on mine site – to serve the rehabilitation program and mine closure. The trial model collaborates for a period of 3 years (2016 – 2018).

Normal industrial waste recycling: Collaborate with the Institute of Construction Materials – Ministry of Construction in recycling OTC tailing into clinker and grey brick. The project will commence in early 2017.



COMPLIANCE

Since 2013, we have engaged with reputable Vietnamese and international agencies such as SGS of Australia, Goshu Kohsan of Japan, and the Institute of Environmental Science and Public Health to take water samples for an internal and, also, independent evaluation. Each day, more than one dozen samples are taken for analysis and evaluation. From 2013 until 2016, a total of 18,233 water samples have been taken. These samples help Nui Phao assess and accurately control water quality, while providing the opportunity to react in a timely manner if remedial measures should be required.



Partnering environment monitoring

We have engaged reputable, capable and certified agencies, such as:

- Institute of Environmental Science and Public Health (surface water, ground water and waste-water sampling and analyzing).
- Institute of Environmental Technology - Hanoi University of Technology (Industrial Emission Monitoring).
- Goshu Kohsan Lab (surface water and waste-water sampling and analyzing).
- Quatest1 and Institute of Environmental Technology (IET) analyzed surface-water and waster-water.

	2014	2015	2016
Ground-water samples	313	302	534
Surface-water samples	490	385	915
Waste-water samples	3,356	4,087	5,765

- EATC implements waste-water and solid sampling and analyzing.
- NAWAPI (MONRE) engaged in the research and set-up of the hydrological monitoring network.

» TOWARD TRANSPARENCY

The Company provides monthly announcements of waste-water quality monitoring results to the stakeholders to ensure transparency of information. The complaint mechanism (see more page 96) is developed and maintained.

The Company holds a weekly meeting with the communes and hamlets, intended to resolve raising issues in a timely manner. Further, Nui Phao also organizes field trips to the Nui Phao's project site for representatives of State management agencies, media and all concerned local people so that they could be assured that mining work is carried out in accordance with internationally recognized standards.



Ha Thuong authorities and inhabitants of hamlet 3 and 4 visiting the Waste water treatment plant at NPM

» READINESS FOR EXTERNAL SUPERVISOR AND AUDIT

In 2016, we received seven official inspections from MONRE, Environment Police Bureau (EPB), Thai Nguyen Delegation team (DOIT, DONRE, Dai Tu DPC) in relations to our mining, land management, explosive materials, environment and water resource management activities. The inspections teams assessed Nui Phao's compliance with the existing environmental laws, and have all been closed out.



Meeting on Complaint Resolving with Ha Thuong residents

	2014	2015	2016
Total number of compliance inspection	8	9	7
Central Government (MONRE, EPB)	1	1	2
Thai Nguyen Province (DOIT, DONRE, Dai Tu DPC etc.)	7	8	5

Overall environment expenditures (VND million)

	2014	2015	2016
Environment monitoring	6,778	8,539	9,861
Waste water fees	501	338	516
Waste disposal (HW and DW)	3,162	3,531	2,499
Environment protection fees	4,861	5,352	13,227
Rehabilitation	1,836	621	2,065
WWTP	-	25,030	-
Tailing dams	712,640	358,512	110,861
Training	32	345	40
Personnel	4,956	5,473	4,807

ENVIRONMENT MANAGEMENT





SUSTAINABILITY FOR ALL OF US

Toward transparency and responsiveness

Infrastructure improvement

Making local experience viable

Sustainable economic platform

Better life in the Nam Song Cong
relocation site

Our journey to meeting the sustainable
development goals (SDGs)

“We are not only committed to sustainable practices and active community engagement because of the long-term nature of our business license, but also because we truly believe it is our duty to raise the standards of Vietnam’s mining industry for the benefit of future generations of Vietnamese people. Therefore, developing successful mining arrangements with local people isn’t only about technical solutions, it’s about relationships, reconciliation and the balance of interests”

Vu Hong - Deputy General Director
Responsible for Community and Sustainability Affairs.



In keeping with MSR’s involvement pledge with the community, in 2016 the Company has contributed VND 3,7 billion towards community development initiatives, which have been defined at the early stage of mine development. We believe that such community development initiatives can ultimately integrate the role of mining into the broader context of sustainable development and national plans to achieve the Sustainable Development Goals (SDGs).

As repeatedly mentioned in our annual sustainability reports, the PCDP and CDP programs have been instrumental in the success of MSR.

Our open dialogues with local communities have been mutually beneficial. On the one hand, these open dialogues have helped the Company develop a better understanding of our communities, their expectations and concerns, which has, in turn, improved their access to the created economic opportunities such as job training, employment and service contracts, whereas, on the other hand, they have provided MSR with dedicated community partners and a strong and reliable workforce and able contractors.

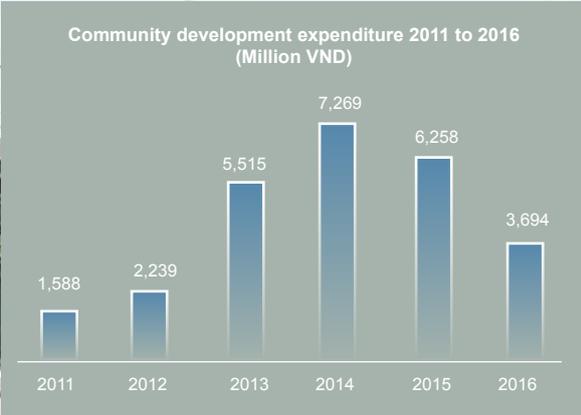


349
households were
entitled with the
VietGAP certificate

167
households benefited
from the economic
restoration fund

118
stable jobs for
local suppliers

169
Tan Linh residents
have access to
standard sanitation
facilities



▶ TOWARD TRANSPARENCY AND RESPONSIVENESS

Proactive communication builds trust and strengthens reputation, which in turn protects the Company's investors and facilitates its ability to implement strategy.

▶▶ PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

PCDP has been designed to develop, maintain and improve two ways communication between the Companies and stakeholders, among which the indigenous communities was the key. From year to years, this communication mechanism is accordingly implemented, accurately monitored and properly justified

and improved. In particular, the day-to-day outcomes of PCDP activities play an essential role in understanding the core issues of the communities as well as timely producing adequate measures, which allow company smooth operations.

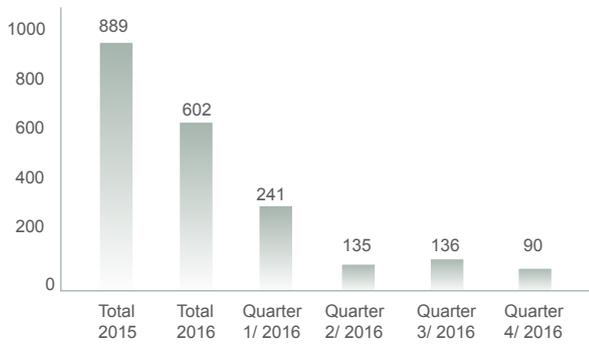
Information disclosure channels

We have invested in a variety of information disclosure channels, including information centres, loudspeaker systems, newsletters, local media and website etc. This approach demonstrates our engagement in making information about the Company's activities accessible to everyone in an active, straightforward, and transparent manner. In 2016, more than four thousands of company information items were disclosed; there were more than 600 visits to our information centre in our project site.

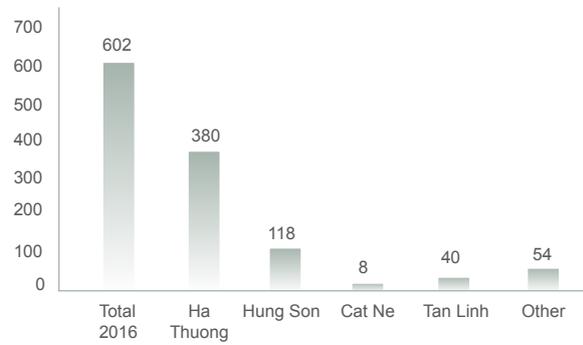
Information disclosure from 2011 to 2016



Visitors to Information Center in 2016, by quarters



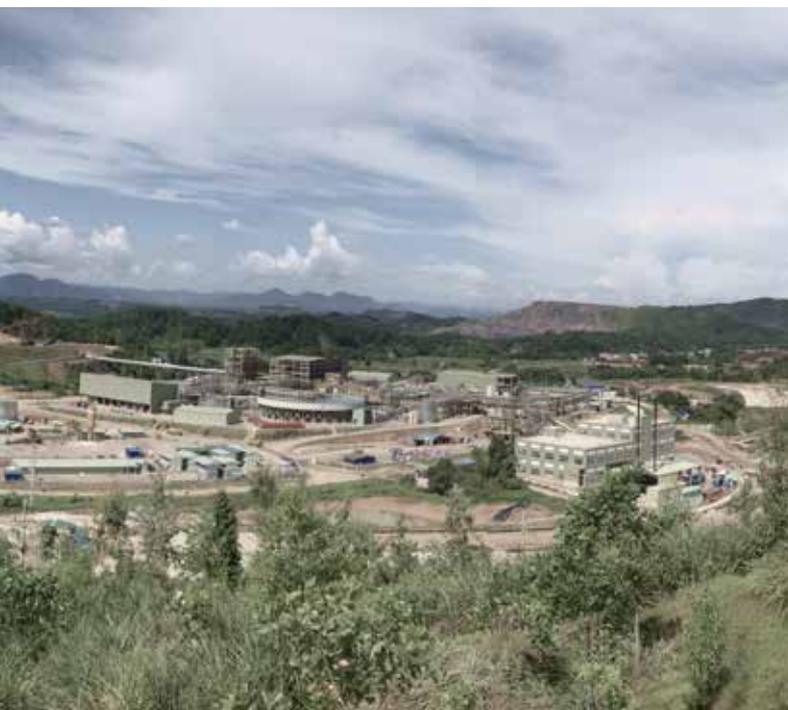
Visitors to Information Center in 2016, by locations



Quarterly Newsletters published in 2016



Nui Phao Mining Information Centre



Being a big and complex polymetallic mine, the Nui Phao project faces potential risks of social constraints due to possible impacts associated by the mine operations.

» COMPLAINT MECHANISM: FROM PROBLEM TO SOLUTION

In 2016, the number of complaints and grievances continued decreasing in comparison to 2015. However, some complaints remained as 'difficult to solve complaints', which require involvement of a third party or government agencies, as well as additional time for further investigation. Nevertheless, we often offer short-term solutions to unlock the concern of the local people.



Providing clean water for the villagers, who are concerned about water from the water wells, located near our tailings dam

	2015	2016
Total grievance about environmental impacts	84	106
Resolved	79	104



➤ INFRASTRUCTURE IMPROVEMENT

Infrastructure is an essential part of a vibrant community, and it is also of crucial importance for the unlocking of economic development opportunities. In 2016 Masan Resources invested 1,221 million VND into the construction and upgrade of five community assets. These included building a culture house (Ha Thuong 11), a concrete road (Tan Linh 13), an asphalt road (Hung Son 1-old QL37), an irrigation system (Ha Thuong 6) and a full reconstruction of an overflow bridge (Phuc Linh) in the affected communes. Until 2016, the type of infrastructure activities supported by the Company under the Community Development Program so far amounts to 8.5 km of roads, 4 cultural houses, 1 bridge and 2 irrigation systems.

8.5 km of roads

4 cultural houses

1 bridge

2 irrigation systems

Unlock the economic opportunities

A section of the Old National Highway No. 37 along the An Long and Lien Gioi residential clusters (from km 150+200 to km 151+100) which was constructed in 2002 has now deteriorated to the point of inhibiting transportation and trade of the local communities.

The repairs and upgrade of this section of the National Highway are expected to enable at least 300 households with over 1,000 people living in its vicinity to access a safe and convenient transportation and reinstate trading opportunities.



MAKING LOCAL EXPERIENCE VIABLE

We have continued to provide our support to agricultural extension services with a constant focus on local competitive advantages including tea and vegetable cultivation, however, we have now expanded our support to cover exploratory flower cultivation as a new agricultural advantage of the community.

Highest VietGAP – tea entitled in the province

Under the VietGAP tea program, an additional four groups with a total of 227 households were able to obtain the VietGAP certificate. Compared with the same period of 2015, the program has almost doubled in size in every aspect, such as the number of production groups, number of participating households and size of the cultivated areas. To date, a total of 349 households in 4 affected communes with 56.6 ha of tea farm have been fully certified with VietGAP standards. Subsequently, their VietGAP tea products are expected to retail at a price that is 20% to 40% higher than non-VietGAP certified products.



According to the statistics of the Thai Nguyen Centre for Agriculture Commodity Quality Inspections from 2013 until now, Masan Resources has financially contributed 25% of VietGAP tea area in Dai Tu district and 9% in Thai Nguyen province.

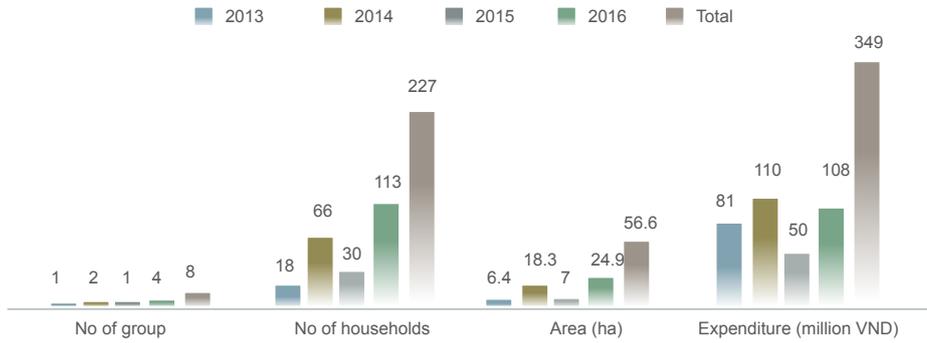


“Nui Phao is the unique enterprise in the Dai Tu district that has been constantly supporting safe agriculture practices of local community over the years”.

Mr. Dang Dinh Luc - Vice Chairman of Hung Son town.



VietGAP tea supported by Masan Resources over the years (2013-2016)



VietGAP vegetable program

2016 was a milestone year for the VietGAP vegetable program. It saw the establishment of the Hung Son Safe Vegetable Cooperative. The town of Hung Son set up a VietGAP vegetable model with 11 ha of arable land in 2011 and ever since its foundation was struggling to maintain VietGAP standards and provide a stable output, let alone to scale up its production activities. Masan Resources became aware of the dire situation in 2013 and immediately stepped in to provide financial and expert support. As a consequence, after 3 years of the Company’s continued backing through financial help and intensive and practical training, over 150 farmers and agricultural workers have now strengthened and secured their vegetable cultivation.



Promoting and marketing of Hung Son safe vegetables by supporting package and labelling, engaging media partners and opening an outlet at NPM’s catering service area where the vegetables can be brought to meals for our staff.



In November 2016, Hung Son safe vegetable Cooperative was established with over 13 ha of arable land and 120 members.

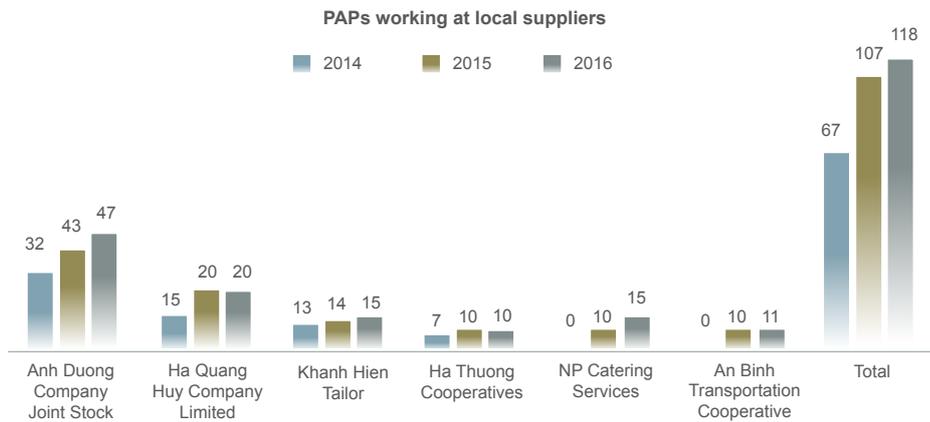
47 people participated in a study tour to Van Noi vegetable cooperative in Dong Anh, Hanoi where they not only learnt useful cultivation techniques but also explored market solutions.

SUSTAINABLE ECONOMIC PLATFORM

MORE INDEPENDENT GROWTH OF LOCAL ENTERPRISES

In general, 2016 was not an easy year for six local suppliers, due to the downturn in global commodity prices of all the goods produced by the Company. However, these local suppliers were all still able to

maintain revenues comparable to those of 2015 and generated jobs for more PAPs owing to market diversification.



Anh Duong enterprise - One of our local supplier were rewarded as one of the district enterprise of excellency in 2016.



Our canteen shops provides 600 portions daily, creating jobs with stable income for 15 PAPs.



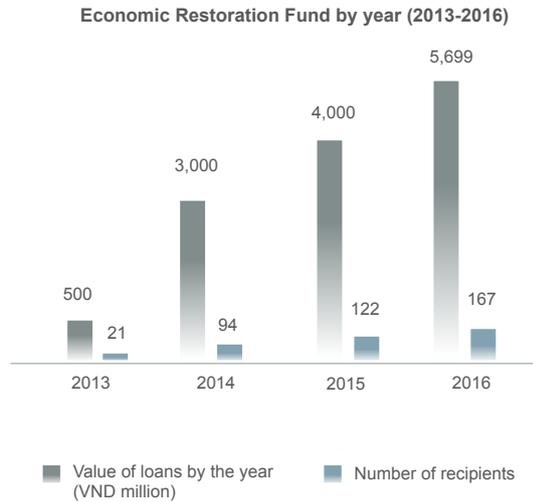
The Khanh Hien local tailor has made nearly 1000 uniform units for MSR and its contractors in 2016.



Ha Thuong environmental sanitation cooperative provided service for 840 households, creating job for 5 poor laborers.

» ECONOMIC RESTORATION FUND – HAVING IMPACT IN POLICY MAKING

The micro-finance fund continues to uphold itself as an effective and innovative economic restoration model. This year, over VND 1 billion was further invested and VND 699 million was reinvested into the fund, generating access opportunities to affordable capital for 47 additional households. Currently 167 households are utilizing the fund for a great variety of income generation activities. So far, 45 households have been able to repay their loans and no non-performing loans have been recorded.



Thanks to its creation of the microfinance fund, Masan Resources was acknowledged as a unique enterprise in Thai Nguyen province not only for its leading role in community development, but also for its influential policy advocacy work. On the basis of guidelines from Party Central Committee Secretariat (Directive No 40, dated 22/11/2014) and the evidence of success of the of Masan Resource’s micro-finance model, Thai Nguyen became one of the few leading provinces to implement the general policy on mobilizing enterprises to share their resources with Social Bank to support the poor and economically challenged households (policy archive numbers No 998CV-TU dated 20/3/2015 of Thai Nguyen Party Committee, archive No 352 dated 05/2/2015 of Thai Nguyen People’s Committee).



“The microfinance model of Masan Resources is an effective role model. The model not only helped to pool the resources to accomplish the goals of poverty reduction and social security but also convinced us that enterprises could and should share their social responsibilities effectively. Learning from this model, several enterprises in neighboring districts namely, Vo Nhai and Pho Yen have consigned their capital to banks of Social Policy to help disadvantaged families improve their livelihoods. Yet, up to date Masan Resources’ micro finance fund is still on top of the list regarding the value invested”.

Mr. Le Van Hong - Deputy Director of Thai Nguyen provincial bank of Social Policy said.

» PARTNERSHIP FOR RESOURCES MOBILIZATION

As stated in our previous sections, MSR sustainability network comprises various stakeholders including governments, non-governmental organizations, development partners, the private sector and communities. The mass organizations (Red Cross, Women's Union, Farmer's Union, Climate Protection through Energy plants (CPEP) to mention but a few) were responsible in identifying gaps and social needs as well as leveraging the

resources needed to make a difference in our joint-projects. Other governmental and non-governmental institutions such as the Social Bank and East Meets West as well as our Thinh Cuong and Khanh Hien contractors have engaged in an active collaboration for successful development models of infrastructure, micro finance and other CSR related activities.

Together with East Meets West: 74% Tan Linh residents have access to standard sanitation facilities

Poor sanitation and unsanitary practices are a big issue that may lead to diseases, health problems and threaten people's well-being.



In 2016, Masan Resources, in collaboration with governmental and international non-governmental partners, have made significant contributions to the improvement of local environment and sanitation.

The project is jointly funded by the Masan Resources' Community Development program, the East Meets West's program on Water, Sanitation and Hygiene Output Based Aid (Washoba) and the National Target Program on Clean Water and Environmental Sanitation.

By the end of 2016, 169 disadvantaged, poor and near-poor households have been help to complete the construction of hygienic latrines.



Together with CPEP: Energy tree plantation



Under the framework of the Climate Protection through Energy Plants (CPEP) Project implemented by the Independent Institute for Environmental Issues (UfU) of the Federal Republic of Germany and a variety of partners in Vietnam including Masan Resources, the feasibility activities of “re-using closed mining sites for growing energy plants” project was successfully deployed at the NuiPhao mine.

In parallel, the socio-economic and environmental value related to the plantation and utilization of energy plants in the community was seriously explored, due to our belief that this approach could create new sources of income and bring in new sources of energy for local residents. After the successful trial at the at the Nui Phao mine, nearly 30 tonnes of energy plants (VA06) were provided as food for 200 cattle belonging to 40 households. At the same time 1.3 ha of energy plants were planted on community farmland. The project is also intended to support the construction of one biogas digester (as a role model) in a neighboring commune to demonstrate to the local framers successful economic utilization of mining land as well as the benefits of biogas.

In commemoration of the World Environment Day (5th June), a bare hill in Hung Son and public places (school and health centre) of Phuc Linh, with a total surface area of about 500m², was afforested with around 200 hundred trees.



BETTER LIFE IN THE NAM SONG CONG RELOCATION SITE

As the Nui Phao project continues to develop and mature over the planned lifespan of 20 years, it will affect approximately 1,925 households. In its development stage, the Nui Phao mining project has directly affected four project communes and two host communes resulting in the displacement of 1,370 households. 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.

“[...] All involuntary resettlement projects should be conceived and executed as development programs, with resettled people provided with sufficient investment resources and opportunities to share in project benefits” (Operational Directive 4.30 on Involuntary Resettlement - WB).

The Nam Song Cong resettlement site, located in the Hung Son commune of the Dai Tu district, was acquired in 2010 and divided into 474 plots, with each plot allocated to households whose land was acquired for the Nui Phao mine project.



The Nam Song Cong site has adequate infrastructure and social services facilities, such as a market, a health care center, a cultural house with over 120 seats and a church which is considered as the biggest in Dai Tu.



After nearly 6 years, the Nam Song Cong resettlement site has become one of the most modern and busy residential areas of the Dai Tu district. Recently, the town of Hung Son has inaugurated the project of developing a model of urban “number one” as well as Dai Tu Central Market, both of which are bordering the Nam Song Cong relocation site. Upon completion, the project is expected to become the epitome of the industrialization and modernization and development progress of the Dai Tu district; and in the meantime the town of Hung Son is expected to be categorized as an urban city of level 4 before 2020.

Of nearly 800 residents living at the site, about 400 are of work-able age. Out of these 800 residents, nearly 200 are working either at Nui Phao mine or for its contractors or suppliers. The rest are public servants, employees of private enterprises or self-employed. Owing to the attractive features of the new location, many households have developed their own businesses, such as shops, restaurants, motels and hotels which generates a stable income for PAPs.



“The Son Ha group (Nam Song Cong resettlement site) is the first hamlet in the town of Hung Son where 100% of all households have gained access to standard water and sanitation. Here, 25% are seen as rich people, 65% as better-off, while there were no poor households. Our life after resettlement is much better than before”.

Ms. Dao Thi Vu, head of the Son Ha group (Nam Song Cong resettlement site)

OUR JOURNEY TO MEETING THE SDGs

Partnership with East Meets West, CPEP etc. for sustainable development

The implementation of PCDP including the complaint mechanism

Our environmental rehabilitation plan and tree plantation project



Emissions and promoting developments in renewable energy

Established **4** VietGAP tea production groups with 113 households for farmers

Our modern relocation sites

Invested VND **1,221** million into the construction

5 infrastructure works

Our production innovation projects

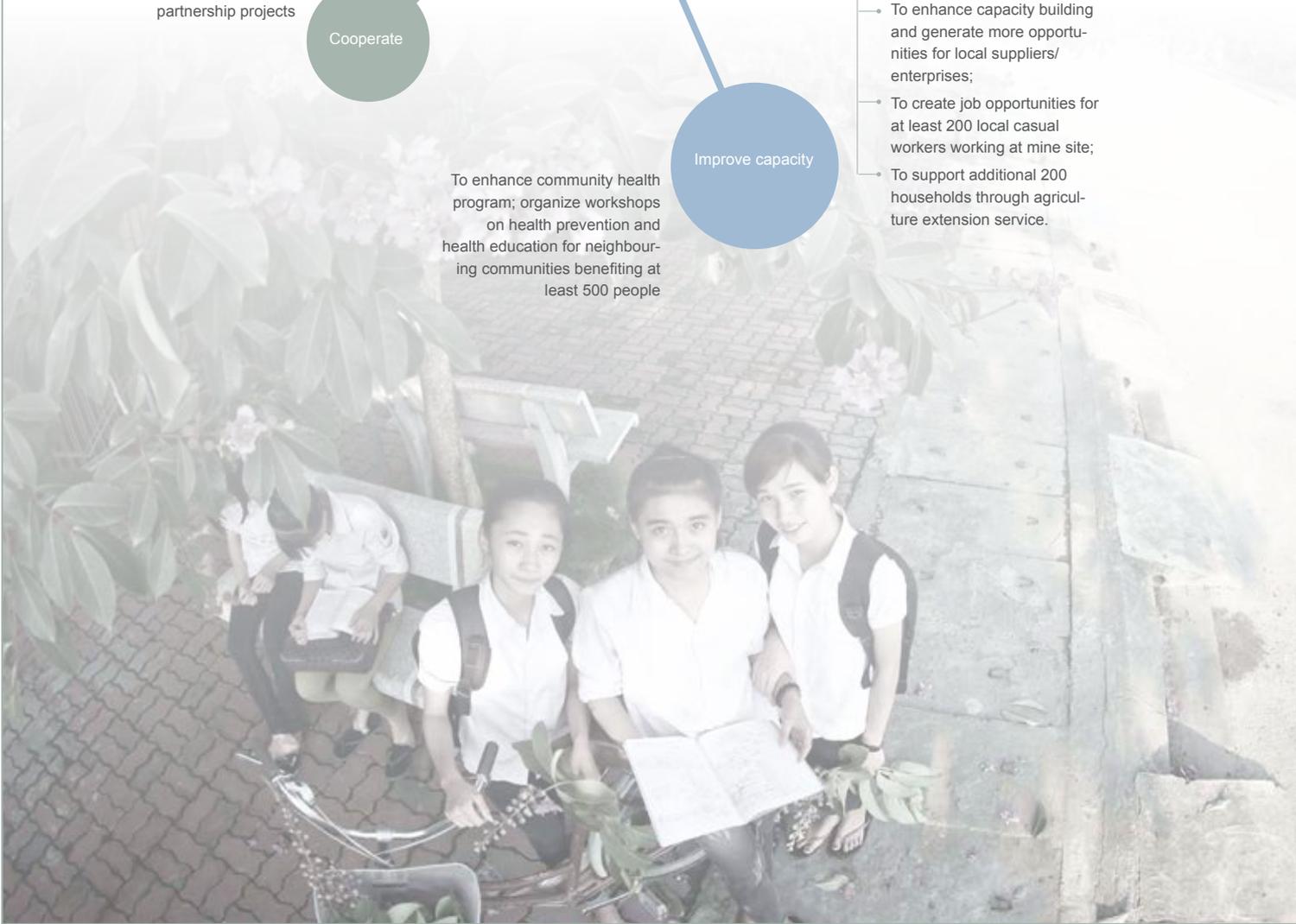


SUSTAINABLE DEVELOPMENT



GOALS

COMMUNITY ENGAGEMENT



ABBREVIATIONS

APT	Ammonium Paratungstate
AGME	The Association of Geology and Minerals of Vietnam
Board of Directors or BOD	The board of directors of the Company
Bn	Billion
BSF	The bulk sulphide flotation
BTO	Blue Tungsten oxide
CEO	Chief Executive Officer
CPEP	Climate Protection through Energy Plants
CSR	Corporate social responsibility
DOST	Department of Science and Technology (Thai Nguyen)
DOIT	Department of Industry and Trade (Thai Nguyen)
DOLISA	Department of Labor, Invalids and Social Affairs (Thai Nguyen)
DONRE	Department of Natural Resources and Environment (Thai Nguyen)
DPI	Department of Planning and Investment (Thai Nguyen)
EATC	Environment analysing and technique Joint Stock Company
EIA	Environmental Impact Assessment
GHG	Greenhouse gasses
LTI	Lost-Time-Injuries
H1	First half
HR	Human Recourses Department
hrs	Hours
HSS	Health, Security and Safety Department
ICMM	The International Council on Mining and Metals
IFC	International Finance Corporation
IT	Information technology
ITIA	The International Tungsten Industry Association
JHA	Job Hazard Analysis
MDGs	Millennium Development Goals
MOIT	Ministry of Industry and Trade of Vietnam (Vietnam)
MONRE	Ministry of Natural Resources and Environment (Vietnam)
MPI	Ministry of Planning and Investment (Vietnam)
mtu	Metric tonne unit
MSR	Masan Resources
NAWAPI	Water Resources Planning and Investigation for the North of Vietnam
OTC	Oxide Tailing Cell
OPEC	Petroleum Exporting Countries
PAP	The project-affected people
PCDP	Public consultation and information disclosure program
PTP	Pit Transfer Pond
IPO	Initial public offering
SCM	Supply chain management

SDSs	Sustainable Development Goals
STC	Sulfur Tailing Cell
SWIP	Safe Work Isolation Procedure
TEU	Tungsten equivalent basis
TPA	Tonnes per annum
TRIF	Total Recordable Injury Frequency
TSF	Taillings Storage Facility
UN	The United Nations
UPCOM	Unlisted Public Company Market
US or USA	The United States of America
USD or US\$ or \$	The lawful currency of the United States of America
VCCI	Vietnam Chamber of Commerce and Industry
VietGAP	Vietnamese Good Agricultural Practices
VND or “Vietnamese Dong”	The lawful currency of the Socialist Republic of Vietnam
WWTP	Waste-water treatment plant
YTO	Yellow Tungsten oxide
WHA	Waste high arsenic
WHS	Waste high sulphur

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M A S A N
R E S O U R C E S



MASAN RESOURCES CORPORATION

Suite 802, 8th Floor, Central Plaza, 17 Le Duan,
Ben Nghe Ward, District 1, Ho Chi Minh City,
Vietnam
Tel : +84 8 6256 3862
Fax : +84 8 3827 4115

Representative Office
Level 15, Hoa Binh International Building
106 Hoang Quoc Viet Street, Cau Giay District,
Hanoi, Vietnam
Tel : +84 4 3718 2490
Fax : +84 4 3718 2491