

PHU BIA MINING
AND OPERATIONS
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COMMUNIT
SUPPLIERS



PHU BIA MINING

2018

Annual Review and
Sustainability Report



PHU BIA MINING IS WAY AHEAD BECAUSE OF ITS PEOPLE, NOT ITS ORE BODIES. IT IS **PHU BIA MINING'S** PEOPLE THAT DEVELOP AND OPERATE WORLD CLASS PROJECTS IN CHALLENGING GEOGRAPHIC LOCATIONS. IT IS OUR **PEOPLE** THAT **FORGE** THE RELATIONSHIPS INTEGRAL TO OUR OPERATIONS AND ACTIVITIES. AND IT IS OUR PEOPLE THAT WILL DETERMINE **OUR** FUTURE SUCCESS. THE COMMON CURRENCY OF OUR **SUCCESS** IS THE STRENGTH OF OUR RELATIONSHIPS; RELATIONSHIPS WITH OUR EMPLOYEES, OUR COMMUNITIES, HOST GOVERNMENTS, SUPPLIERS, PEERS AND PARTNERS.

COMPANY PROFILE

Phu Bia Mining Limited ('Phu Bia Mining', the 'Company') is a leading copper and gold producer in Laos.

Phu Bia Mining's producing assets are the Phu Kham Copper-Gold Operation and the Ban Houayxai Gold-Silver Operation, both located in the Company's 2,600 square-kilometre Phu Bia Contract Area (the 'Contract Area').

Phu Bia Mining has a Mineral Exploration and Production Agreement (MEPA) with the Government of Laos which regulates exploration, development and mining activities within the Contract Area, and sets out the Company's tax and royalty obligations.

Company structure

Phu Bia Mining is 90 per cent owned by PanAust Limited, with the Government of Laos owning the remaining 10 per cent.

PanAust is an Australian incorporated company that is owned by Guangdong Rising H.K. (Holding) Limited, a wholly owned subsidiary of Guangdong Rising Assets Management Co. Ltd (GRAM). GRAM is a Chinese state-owned company regulated under the state-owned Assets Supervision and Administration Commission of the People's Government of the Guangdong Province in China.

PanAust's corporate office in Brisbane, Australia provides leadership and support across Phu Bia Mining in relation to strategy, financial management, commercial and technical services, risk management, sustainability, corporate communications, human resources, governance and reporting.

The PanAust Asia business unit has a regional office located in Vientiane. The business unit has responsibility for operations in Laos and for supporting the implementation of business development strategies within Laos and the region.

PanAust's Project Development business unit is responsible for the Company's development and operational improvement projects. It comprises teams responsible for technical studies and project implementation to deliver capital-efficient project development and strategic improvement initiatives to support and enable the Company's growth.

About this report

This Report covers production, business and sustainability-related information for 2017. It summarises data taken from **PanAust's 2017 Business Review and Sustainability Report** (available at www.panaust.com.au/reports) which presents data for a three-year period, was prepared to Global Reporting Initiative G4 Core Sustainability Reporting Guidelines, and independently assured prior to publication.

PanAust uses a materiality determination process to identify the issues that matter most to PanAust and its stakeholders; those issues are covered in both PanAust's 2017 Business Review and Sustainability Report and in this Report.



Exploration Licences

**Phu Kham Copper-Gold Operation,
Ban Houayxai Gold-Silver Operation,
Vientiane Office**

Frieda River Copper-Gold Project

Brisbane Office



*Ban Houayxai Gold-Silver Operation
process plant grinding circuit*

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2017 HIGHLIGHTS



90,363[▲]_t

COPPER IN CONCENTRATE PRODUCTION



**US\$ 90.26
MILLION**

DIRECT CONTRIBUTION
TO GOVERNMENT OF LAOS



3.5 per cent

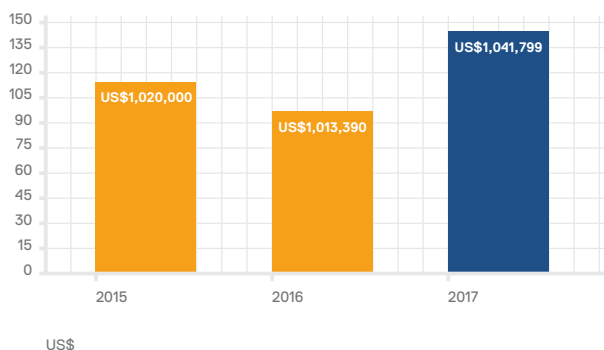
OF LAO GROSS DOMESTIC
PRODUCT (GDP)
ATTRIBUTABLE TO PHU BIA
MINING ACTIVITY IN 2017



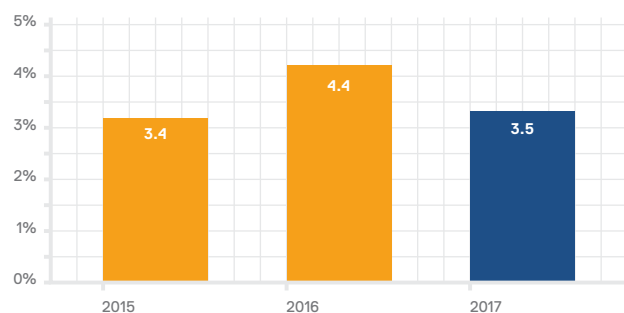
**US\$1.97
MILLION**

INVESTED IN PUBLIC ROAD
INFRASTRUCTURE AND
MAINTENANCE

**US\$1,041,799 income generated for local
communities through the purchase
of vegetables, drinking water, eggs,
cloth bags, fruit and fish**



**Percentage of Laos' 2017 GDP
attributable to Phu Bia Mining activity
2015-2017**





**192,530
OUNCES**

OF GOLD IN CONCENTRATE
AND DORÉ PRODUCED



**1,377,376
OUNCES**

OF SILVER IN CONCENTRATE
AND DORÉ PRODUCED



91 per cent

LAO-NATIONAL WORKFORCE
(AS PERCENTAGE OF 2017
WORKFORCE)



US\$118,000

SPONSORSHIP AND
DONATIONS MADE
(THROUGH CASH AND
IN-KIND DONATIONS)



16

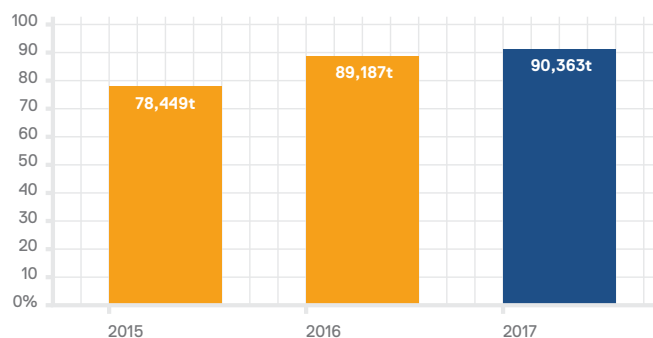
SMALL-SCALE PROJECTS
IMPLEMENTED THROUGH
COMMUNITY DEVELOPMENT
FUNDS (CDFs)



\$175,102*

TOTAL INVESTMENT IN
COMMUNITIES (THROUGH
THE CDF)

Copper production 2015-2017



* Due to changes in the structure of government departments managing the CDF program and their different expectations regarding oversight, sign-off was delayed until September 2017. The 2017 CDF budget was carried over to 2018.



AT PHU BIA MINING, WE DEFINE SUCCESS HOLISTICALLY.

Success requires excellence not only in the physical production of copper and gold but across all aspects of the business including our people, safety, environmental management, community relationships, government engagement, and returns to shareholders. We consistently find that pursuing business and sustainability outcomes in a complementary manner is mutually beneficial; success in one area facilitates excellence in the other. This approach is enshrined in our Vision and Values and through our code of conduct, *The PanAust Way*.

Phu Bia Mining ended 2017 in good shape, characterised by excellent production, safety outcomes and cost performances. Copper and gold production from our Operations was strong. Above budget and record metal production was achieved, with an annual record of 90,363 tonnes (t) of copper in concentrate. Other consolidated annual metal production included 192,530 ounces (oz) of gold and 1,377,376oz of silver in concentrate and doré. Importantly, we achieved these outstanding results safely, sustainably, and in collaboration with our host communities and governments.

Success at Phu Bia Mining can be distilled into two fundamental constituents – an ore body that contains wealth in the ground, and people who unlock that wealth. Any inadequacy in one constituent must be compensated by abundance in the other for success to ensue. At Phu Bia Mining, our ore bodies are lower in grade and have more challenging metallurgy than most. Our success is truly people driven.



As Phu Bia Mining's Operations are mature, we have increasingly focused our attention on developing our people to complement our continuing pursuit of technical and related advancements.

We have made a long-term commitment to promote localisation of our workforce through training and development. We have maintained our 2016 benchmark by employing 91 per cent Lao-nationals with this set to increase to 93 per cent in 2018. This outcome has been supported through the successful Trades Training Apprenticeship Program, which meets the Queensland TAFE Certificate III accreditation requirements, and by embedding the development of our local workforce as a performance measure for our expatriate workforce.

In December, 34 Lao-national employees graduated from the Program and have since transitioned into full-time trades positions with the Company's Operations. Each graduate represents a positive and enduring legacy of Phu Bia Mining's contribution to Laos.

In a separate complementary program, our Lao Supervisory Development Program targets high-potential employees and assists them to develop their leadership skills in the fields of planning and strategy, managing performance, problem solving,

communication, and negotiation. Graduates in 2017 – the Program's seventh year – were recognised at a ceremony held at the Crowne Plaza Hotel in Vientiane. The success of this program is reflected in the promotion of 380 Lao employees into leadership positions since 2014, 85 of whom were promoted in 2017.

Importantly, our performance as a business has improved over this period of increased Lao-national participation in the workforce. This serves to reinforce our commitment to localising our workforce, ensuring they are Way Ahead as a result of their employment with Phu Bia Mining.



In 2017, Phu Bia Mining also rolled out *Leading The PanAust Way*, an internally designed and facilitated leadership development program which promotes a PanAust-style leadership capability model and integrates key aspects of *The PanAust Way*, our Vision and Values, and strategy. Within the program, each individual leadership role received feedback from their workplace superior, peers and subordinates. The program provides revealing insight into leadership strengths and identifies areas for self-reflection and opportunities for improvement.

Keeping our people safe is an essential principle that every leader in our business believes in and takes seriously. We demonstrate this commitment by consistently achieving outstanding safety results – 2017 was no different. By year end, Phu Bia Mining's Total Recordable Injury Frequency Rate (TRIFR) was 0.83. This outcome is better than industry averages and a 28 per cent improvement on the Company's 2016 safety results. Our safety performance reflects our commitment to Zero Harm safety objectives and the success of targeted safety programs that focus on hot spots and lead indicators.

During the year, a follow-up to the 2013 employee engagement survey delivered an improved result with respect to safety engagement. An overall satisfaction rating of 92 per cent outperformed the 2013 results by 11 per cent, and significantly outperformed the natural resources benchmark (made up of mid-tier and large, high-performing mining companies) of 87 per cent. This result confirms the maturing of the Company's safety culture and the belief of employees that Phu Bia Mining genuinely

CHAIRMAN'S REVIEW

cares for the safety, health and wellbeing of its workforce. Phu Bia Mining made substantial direct economic contributions to Laos at both a community and national level in 2017. Total Phu Bia Mining activity, taking into account investments and in-country operating expenditure, accounted for over 3.5 per cent of the nation's GDP and 20 per cent of total Lao goods exports in the year (estimated by the Economist Intelligence Unit as US\$3,654 million). We contributed more than US\$90 million to the Government of Laos through taxes and royalties, and paid Lao suppliers of goods and services US\$176 million. To date, the Company's contributions to the Government of Laos has reached over US\$600 million, and the Company has invested a cumulative total of over US\$1.41 billion into the Lao economy.



The Company continues to achieve significant benefits in the communities closest to our Operations through direct employment and CDFs. Some 16 small-scale development projects were implemented in the 18 communities closest to our Operations. Focus areas were education, health, agricultural development, small business development, microfinance and infrastructure. The CDF plans during the year were redesigned with a five-year outlook to support communities post-closure.

In 2017, we started planning for the important transition to closure at both Operations within the next five years. Our approach to closure planning is no different to a new project. In developing a feasibility study for closure activities and establishing a dialogue with key internal and external stakeholders early, we

are demonstrating that we are committed to leaving a lasting positive legacy in Laos. It also exemplifies our credentials as leaders in sustainability in the mining sector. Importantly, we have successfully re-designed our internationally recognised CDF program to cover a five-year period, with the aim of achieving UN Sustainable Development Goal standards in the three villages closest to our Operations.

In March, Phu Bia Mining was awarded a Labour Order Medal from the Government of Laos in recognition of the Company's upgrade of Road No.12 in the Khammouane Province, an important link between Laos and Vietnam on the Company's logistics route. We were honoured to receive the medal which acknowledges our ongoing commitment to, and promotion of, the socio-economic development of Laos.

On behalf of Phu Bia Mining's Board of Directors, I sincerely thank the Government of Laos, all our employees, our business partners and everyone concerned with Phu Bia Mining for their ongoing support in 2017.

Chairman, Mr. Chanpheng Bounnaphol



A teacher with students at the Ban Phonekeo Primary School in Laos

FINANCIAL CONTRIBUTIONS TO LAOS

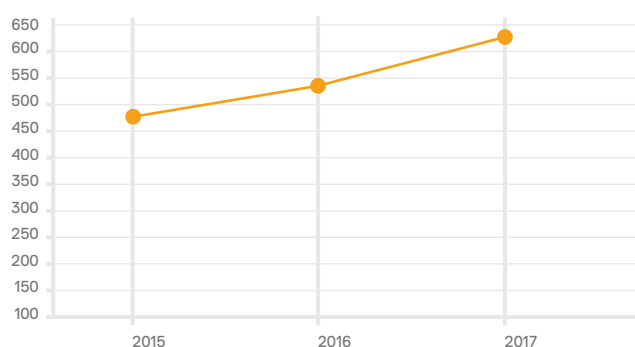
Description	US\$ million		
Contribution	2015	2016	2017
Personal income tax (salary tax)	4.69	4.24	4.16
Import service fee	2.78	1.74	1.70
Road tax	4.26	4.48	4.70
Profit tax (Income tax)*	1.18	16.19	25.33
Royalties	37.36	35.55	43.81
Concession fees	0.06	0.06	0.06
Value added tax paid upfront*	14.22	12.06	12.70
Value added tax deducted from profit tax**	(14.22)	(12.06)	(12.70)
Fuel import duty and excise tax	7.59	9.87	13.65
Fuel import duty and excise tax deducted from profit tax**	(7.59)	(9.87)	(13.65)
Cross border tax paid upfront	0.90	1.51	1.41
Cross border tax deducted from profit tax**	(0.90)	(1.51)	(1.41)
Dividend	4.80	4.50	10.50
Total contribution	55.14	66.76	90.26
Total cumulative contribution	466,554	533,311	623,568
Copper price (US\$/lb)	2.38	2.25	2.84

* In 2016, the Company initiated a strategy to reduce the prepaid profit tax balance by direct deduction of royalties and other payments to the Government of Laos.

** In accordance with the MEPA, Phu Bia Mining is exempt from value added tax and all import duties and excises and these are offset against profit tax in the year in which they are incurred; for the years 2014 and 2015, these payments exceeded profit tax payable and accordingly are treated as a prepayment against future profit tax.

Direct economic benefit to the Government of Laos

Graph shows period 2015-2017 only; full detail in table above



Direct contributions to Laos (annual)

Graph shows period 2015-2017 only; full detail in table above



OPERATIONAL REVIEW

In 2017, copper and gold production at Phu Kham and Ban Houayxai Operations was strong. The Operations consistently maintained excellent production outcomes and strong cost performance throughout the year.

1 per cent

Increase in copper production compared to 2016 (Phu Kham)

10 per cent

Increase in silver production compared to 2016 (Phu Kham)

3 per cent

Increase in copper grade compared to 2016 (Phu Kham)

Phu Kham Copper-Gold Operation, Laos

Phu Kham is Phu Bia Mining's flagship Operation. In 2017, the Phu Kham recorded its highest ever copper production.

Production results

The Operation achieved a new annual record of 81.5 per cent (2016: 79.9 per cent) metallurgical recovery for copper as grades and ore quality improved. A total of 90,363t of copper, 76,055oz of gold and 587,641oz of silver was achieved.

Costs

The average C1* cash cost for the year was US\$1.18/lb of copper after precious metal credits. The all-in sustaining cost (AISC**) was US\$1.68/lb of copper. The average copper price realised during 2017 was US\$2.84/lb.

Mining and processing

Mining operations performed well in 2017 as ore continued to harden with the multi-stage deepening of the open-pit. Total ex-pit material mined was 55.5 million tonnes (Mt) and included 19Mt of ore. Over 18.5Mt of ore was milled – 15 per cent above nameplate capacity.

Annual copper in concentrate production is expected to peak in 2018 before subsequently declining year-on-year until its closure. Gold in concentrate is expected to range from 67,000oz per annum from 2017 onwards. No further development capital is currently expected to achieve this targeted growth.

The Phu Kham Ore Reserve supports a mine life of approximately four years from the end of 2017.

Ban Houayxai Gold-Silver Operation, Laos

Ban Houayxai completed its fifth full-year of operation in 2017 and achieved above budget production. Strong C1 and AISCs were recorded.

Production results

The Operation produced 116,475oz of gold and 789,735oz of silver in doré.

Costs

The average C1 cost after silver credits was US\$618/oz gold and the AISC was US\$817/oz gold.

Mining and processing

Above budget production was achieved at the Ban Houayxai during the year. Total material mined was an annual record of 14.7 million tonnes (Mt) and included 5.3Mt of ore. Over 4.9Mt (2016: 4.7Mt) of ore was processed; 19 per cent above the nameplate capacity.

The Ban Houayxai Ore Reserve supports a mine life of approximately four years from the end of 2017.

Contract Area exploration, Laos

In 2017, drilling at Pha Piang and Phu Dok On in the Company's 2,600 square-kilometre Contract Area was completed. The results from this drilling were not compelling enough to continue exploration of the targets tested.

Disappointingly, the Company's proposed boundary changes to the Contract Area to allow access to new exploration areas, were not accepted by the Government of Laos. Exploration activities were subsequently reduced and will remain at a low level pending the approval of boundary changes.

At the KTL Copper-Gold Project, no material site activities are currently being undertaken or are planned.

* C1 cost is a Brook Hunt convention for the reporting of direct costs comprising: mine site, product transportation and freight, treatment and refining charges and marketing costs; based on payable metal content after by-product credits.

** All-in sustaining cost (AISC) is C1 cost plus indirect costs (an allocation of Brisbane corporate support and shared services costs); royalties; sustaining capital; lease principal and interest charges; and deferred mining and inventory adjustments capitalised.

PHU BIA MINING ACTIVELY SEEKS OPPORTUNITIES TO INCREASE EFFICIENCIES, LOWER COSTS AND MINIMISE ADDITIONAL CAPITAL EXPENDITURE.

Phu Bia Mining's Operations mine and process ore from relatively low-grade mineral deposits. The Company actively seek opportunities to increase efficiencies, lower costs and minimise additional capital expenditure. Cross-functional teams at Phu Bia Mining's Operations have embraced LEAN principles to meet this challenge.



Operate for Reliability LEAN project team from cross-functional Departments at Phu Kham and Ban Houayxai Operations

In 2017, a strategy based on LEAN principles was implemented to optimise value through the identification and elimination of waste. The strategy aligns with Phu Bia Mining's parent company, PanAust's Production Management System (implemented in 2015) which enhances value through a 'Plan – Execute – Review – Improve' continuous improvement process. Associated projects implemented throughout the year included the optimisation of the ball mill reline process, and improvements to the performance of blast hole drill rigstthrough a routine inspection regime.

The successful implementation of LEAN principles and associated projects will drive significant cost savings and efficiency improvements that will benefit the business, and increase returns to the Government of Laos and shareholders year-on-year until mine closure.

For further information, see page 26 of PanAust's 2017 Business Review and Sustainability Report.

COMMUNITY DEVELOPMENT AND COMMUNITY RELATIONS

In 2017, the Company's CDF projects comprised 16 small-scale development projects related to infrastructure, health, education, agricultural development, small business development, microfinance and infrastructure.

USD\$175,102*

Expenditure on new CDF products

16

CDF projects implemented

18

Communities benefitted from CDF projects

Community Development Funds

Community development programs support villages adjacent to the Company's mining operations and logistics and haulage routes in achieving the UN Sustainable Development Goals by contributing to poverty alleviation and economic progress in rural communities. Community development priorities are aligned with national development strategies and goals, informed by data from periodic socio-economic surveys, and developed through consultation with local villagers. In 2017, CDFs with a five year outlook (2018-2022) were finalised with a Memoranda of Understanding (MoU) between Phu Bia Mining and the Government of Laos defining coordination and management arrangements in place. Given Phu Bia Mining's Operations at Phu Kham and Ban Houayxai are mature with closure on the five-year outlook, CDF projects are strategically focused to ensure benefits will continue to support the communities post-closure. Projects that were partially completed in 2017 included:

- > The upgrade of a Nasaysavang primary school building
- > The construction of the upper secondary school and a teacher's dormitory at Nam Mo village
- > Gravity-fed water system improvements at Nam Mo and Nam Gnone.
- > A building for the micro-finance management unit at Nam Mo
- > Construction of gabion weirs at Nasaysavang
- > Construction of a community market at Nam Mo

Community business initiative

In 2017, Phu Bia Mining Operations collectively purchased \$1,041,799 from local small community businesses producing consumables such as vegetables, drinking water, eggs, cloth bags, fruit and fish. Agricultural training was provided for local villagers in order to improve crop quality and diversity of yields, and build capacity in animal husbandry.

Access to financial services

Since 2010, the Company has assisted 12 local communities to establish microfinance schemes through Village Savings and Credit Funds (VS&CF). The Funds provide access to savings and loan facilities that are not otherwise available in rural areas. Members can take loans to support a variety of small-scale income generating activities as well as to cover household expenditure on education and healthcare. In 2017, Phu Bia Mining officially handed

over responsibility for the management of VS&CFs at Ban Phonlao, Vanglouang, Nam Khoui, Ban Meuanglong, Xiengmee, and Napho to the respective villages and the Longxan District. The remaining VS&CFs in Nam Gnone and Nam Mo continue to be supported by the Anouvong District Supervisory Committee on a monthly basis and through an annual audit. To support closure objectives, these funds will develop into Credit and Savings Unions registered with the Bank of Laos and have been included in future CDF programs.

Livelihood restoration

Given the maturity of Phu Bia Mining's Operations, including minimal requirements to disturb new land for mining purposes, in 2017, a total of US\$3,113 was paid in compensation and remediation for economic livelihood impacts related to land.

Sponsorship and donations

Phu Bia Mining provides sponsorships of, and donations to, programs, organisations or causes that build goodwill in operational areas and align with its Values. In 2017, Phu Bia Mining donated US\$118,000 to a wide-range of recipients through cash and in-kind donations.

Closure preparedness

While mine closure for Phu Bia Mining Operations is still on the five-year horizon, Phu Bia Mining engages in a dialogue regarding the impacts of closure, post-closure land use, and other closure-related issues with the Government of Laos and host communities.

In 2017, a preliminary socio-economic review addressing the closure of the Phu Kham and Ban Houayxai Operations was completed, as well as an independent review of agricultural programs and options for CDF programs. A Social Performance Closure Strategy was also drafted which includes social closure criteria.

Community concerns

Phu Bia Mining has mechanisms in place to receive and respond to stakeholder grievances and concerns. During 2017, two grievances relating to impacts to agricultural land were processed and closed out.

Physical resettlement

In 2017, no involuntary resettlement requiring physical displacement (that is, relocation or loss of shelter), was needed by Phu Bia Mining to develop projects or run its Operations.

* Due to changes in the structure of government departments managing the CDF program and their different expectations regarding oversight, sign-off which delayed until September 2017. The 2017 CDF budget was carried over to 2018.

CASE STUDY

THE EVOLUTION OF COMMUNITY DEVELOPMENT FUNDS

› WAY AHEAD

PROMOTING COMMUNITY-LED DEVELOPMENT CONTRIBUTES TO PROSPEROUS COMMUNITIES.

Since the first community development initiatives were implemented in 2006, Phu Bia Mining's approach to community development in communities adjacent to its Operations and along its transport and concentrate haulage routes has evolved from delivering annual Company-led programs to community-led programs.



Community development initiatives were implemented during the first full-year of operation at the Heap Leach Gold Operation (GMO) in 2006. In 2007, initiatives evolved to a formal Community Development Fund (CDF), with a Memoranda of Understanding (MoA) between the Company and the Government of Laos to support the villages of Nam Gnone and Nam Mo.

The goal of the CDF program was to empower people living in communities close to the Company's Operations, near remote exploration sites and along the Company's transport and concentrate haulage routes to determine their own development priorities, thereby facilitating sustainable socio-economic livelihoods that would continue beyond the life of the mine.

In alignment with community development priorities and national development strategies and goals, CDF programs have undergone a series of reviews and changes. In 2017, CDF plans were revised and developed with a five-year outlook that will focus on the delivery of post-closure outcomes. The plan aims to ensure that at closure, the three villages closest to its Operations will have met all of the major development goals for education, health, water and sanitation, livelihoods, and public administration.

For further information, see page 61 of PanAust's 2017 Business Review and Sustainability Report.

ENVIRONMENTAL PERFORMANCE

Phu Bia Mining continues to meet relevant environmental standards and operate in line with global best practice, as confirmed by various external audits and reviews undertaken during the year.

0

Significant environmental incidents

25

Hectares of land rehabilitated

95 per cent

of water recycled at Phu Kham

Environmental incidents

In 2017, Phu Bia Mining had no significant environmental incidents (defined as Level 3 incidents or above*), complaints, spills, penalties, fines or sanctions for any legal non-compliance.

Tailings Storage Facilities (TSFs)

During the year, planned reviews including on-site inspections continued for the Phu Kham and Ban Houayxai TSFs. Overall, the review findings were positive, with no significant deficiencies identified. Both Operations discharged excess water from their TSFs in a controlled manner in accordance with internal site permits and government regulations. Exceedances of Total Suspended Solids (TSS) occurred during the 2017 wet season following peak rain events. At the Ban Houayxai TSF, there were occasional exceedances of TSS, which also continue to be studied in collaboration with Government of Laos officials. A pre-feasibility study for PBM mine closure was completed in 2017 to inform the final design of the TSFs, and will be engineered to a feasibility study level during 2018 as part of the closure plan.

Acid Rock Drainage (ARD)

ARD management plans were in place at both Phu Kham and Ban Houayxai well before mine operations commenced. The plans provide strategies for the identification, control and monitoring of waste rock. Consultant reviews at Phu Kham and Ban Houayxai confirm that the ARD Management Plan to control risks are comprehensive, and are consistent with methods described in the Global Acid Rock Drainage Guide.

Water use

While Phu Bia Mining's water use is significant, the vast majority is recycled. Approximately 95 per cent of the water used at the Phu Kham Operation is recycled, with the balance drawn from the Nam Mo River. Water recycling is limited at the Ban Houayxai Operation due to geographical constraints. The overall percentage of water recycled across the Phu Kham and Ban Houayxai Operations in 2017 was 85 per cent.

Water discharge

In 2017, the Closure Plan for the Heap Leach Gold Operation (GMO) was revised to include an updated strategy for the management of the heap leach pad to incorporate a water shedding cover to mitigate long-term environmental risk. The construction of a wetland system to naturally filter and treat stormwater discharge from the site has proven and continues to be successful in treating leach pad runoff. Extensive monitoring of the downstream river system continues and confirms that excess water discharged from the site throughout the year is within ambient limits.

International Cyanide Management code

Ban Houayxai uses cyanide in the processing circuit for metal production; no cyanide is used at Phu Kham. Ban Houayxai achieved operational certification to the International Cyanide Management Code (the Code) in March 2013. In 2017, an internal gap analysis was conducted and found the Operation was in full compliance with the Code. The next (third) recertification audit is due in 2019.

Rehabilitation and closure planning

Both Phu Kham and Ban Houayxai have rehabilitation plans in place. In 2017, 68 hectares of land was disturbed across the two Operations and 24 hectares rehabilitated. The remaining total land disturbed at both sites is 1,457 hectares. Both Operations have nurseries to propagate native seedlings for use in rehabilitation programs. In 2017, the Phu Kham and Ban Houayxai Closure Plans were revised to a pre-feasibility level. In August, following restructuring of a Government of Laos Closure Committee under a new MoU, Phu Bia Mining and the committee re-established committee meetings to ensure that Phu Bia Mining's closure activities are aligned with stakeholder expectations. Further changes to the membership of the committee are currently being revised and are expected to include greater representation by the Central Government in 2018.

Energy and carbon management

The Company's Operations predominantly use a combination of direct and indirect energy sources (fuel and electricity), to carry out its activities. Each year, teams across the business identify and implement projects that will reduce energy and/or materials consumed. Successful projects implemented in 2017 included:

- Implementation of backloading diesel fuel on the return leg of concentrate haulage.
- A number of initiatives across maintenance teams to upgrade all lighting plants, replace mineral oils with synthetic oils to reduce internal friction in the gearboxes and reduce power consumption, reconfigure the Phu Kham high voltage capacitor bank to improve the site's power factor (enabling the site to utilize real power more effectively).

Sediment and erosion control

During 2017, work continued to manage sediment and erosion risks in Laos. The focus is primarily focussed on the prevention of erosion through improved ground surface stabilisation and revegetation.

* Each issue is ranked on its level of importance to stakeholders and PanAust. The Criteria for ranking are largely based on how PanAust defines issues of significance (defined as levels 4 and 5 incidents/potential incidents using the Company's 'consequence table') and benchmarking activities. The consequence table is available on PanAust's website, www.panaust.com.au/corporate-governance.

CASE STUDY

DIESEL BACKLOADING

> WAY AHEAD

A HOLISTIC APPROACH TO BUSINESS SUCCESS.

A diesel backloading initiative, conceived of and implemented by the Company's Logistics team, has reduced costs and environmental impacts, and improved safety and female participation in the workforce.



A full, half-height tank on top of an empty container being transported to the Phu Kham Operation to collect concentrate, November 2017

Diesel backloading was first introduced in 2015 as an idea to improve the Company's diesel haulage performance. An innovative purpose-built, half-height tank loaded with diesel is transported on top of an 'empty' concentrate container from the logistics hub at Ban Thouay to Phu Kham. On arrival, the diesel is discharged at a fuel farm before proceeding to the process area to collect concentrate. Once the truck is loaded with concentrate, the empty diesel tank travels back to Ban Thouay with a loaded concentrate container.

An independent review of the tank during the backloading trial in 2016 after the completion of all in-house key elements of the half-height tank design confirmed that it was stable and safe in any combination with full or empty tanks.

Backloading removes the need for separate diesel transportation to the Operation, reducing nine daily truck movements (and fuel consumption) and over 3,200 truck movements annually. The initiative not only saves over US\$1 million annually in transport costs, it lowers road haulage safety risks by reducing total vehicle movements and removes over 1,500 tonnes of greenhouse gas emissions.

Diesel backloading has the added benefit of bringing the management of diesel haulage and the associated vehicle specification and maintenance under PanAust's management. Based on known fuel burns and carbon emissions data, diesel backloading will reduce carbon emissions through to the end of mine life at Phu Kham and Ban Houayxai by 7,800 tonnes*.

The logistics team is now investigating the full optimisation of backloading of all inbound cargo, including the consolidation of loads to eliminate regular inefficient partial loads, removing more trucks from busy roads. The system developed to backload fuel has the potential to be rolled out at the Company's future projects and operations; demonstrating that how the Company does business in Laos, provides a template for how PanAust seeks to do business elsewhere.

* This figure is attributable to fuel savings as the emissions savings through associated reductions in tyre usage is still being quantified.

HEALTH AND SAFETY

In 2017, the Company maintained excellent safety results across the Operations. Efforts to seek further safety improvements continue.

0.08

A lost time injury frequency rate was achieved (97% lower than the annual target of 0.23)

0.83

A total reportable injury frequency rate was achieved (28% improvement compared to 2016)

Overall safety performance

The Company's safety focus in 2017 was to improve current systems, rather than introduce new programs. Expatriate personnel are providing increased coaching and on-the-job training of Lao supervisors. Lead indicator programs continued to focus on visible safety leadership, job safety observations in the field, deep dive audits, workplace inspections, planned task observations and safety training.

Safety training

The Company runs a number of mandatory core safety training programs as well as specialist training for high-risk activities. During 2017, 33,639 hours of safety inductions and health, safety and environment training was completed.

Fitness for work

At Phu Bia Mining's Operations, fatigue management procedures are in place, and random drug and alcohol testing is conducted. During 2017, a number of initiatives related to fatigue management were implemented. These included:

- > The development of the Fatigue Committee Strategy
- > The rollout of the fatigue management standard and fatigue management risk assessment programs
- > A review of potential risk factors for logistics and its findings presented by a consultant
- > An evaluation of fatigue detection cameras in vehicles
- > Continued upgrades of logistics personnel accommodation to reduce disturbances from noise and light
- > A 'Logistic Safety Day' to educate family members about how they can support drivers to combat fatigue
- > Increased coverage of the Phu Kham and Ban Houayxai FM radio stations to cover fleet management systems

Contractor management

Phu Bia Mining is committed to improving the safety performance of local contractors, and these efforts continued in 2017. Contractors are prioritised in the Company's contractor matrix and risk-based audit program. Contractors are included in operational safety awareness programs, and quarterly contractor meetings continued during the year. Representatives from key contractors once again attended the Company's Annual Risk and Sustainability Workshop to reinforce the Company's expectations with regard to safety expectations. Deep dives audits on key contractors completing high-risk activities were also completed.

A Contractor Management Standard detailing PanAust's requirements including expectations for contractor and contract owners. In 2017, the Standard's expectations were reinforced through training for contract owners and superintendents. By year end, 85 managers, superintendents and supervisors (or equivalent) had successfully completed this training.

In addition, upgrades to contractor facilities including the light infrastructure and mobile maintenance workshop improvements at Phu Kham, and a chemical storage facility to provide a permanent chemical bund containment area at Ban Houayxai.

Vehicle incidents

Vehicle safety at both Operations and along the Company's transportation and concentrate haulage routes remains a focus area for the business. Ongoing vigilance in this area, with the aim of continual improvement, has seen a four-year decline in vehicle-related incidents (12 high-potential incidents in 2017; 14 in 2016; 26 in 2015; 44 in 2014; and 101 in 2013).

A number of initiatives to improve personnel transport, vehicles, and mobile equipment safety continued to be enhanced during 2017 and included:

- > Continued fitting of in-cab cameras into logistics fleet vehicles.
- > Continued separation of traffic and pedestrian flows around workshops and warehouse facilities.
- > The rollout of diesel backloading to reduce concentrate haulage fleet vehicles on public roads.
- > The development of a web-based asset management and inspection system, MyOSH, to improve maintenance inspections and detect and prevent fraudulent mechanical inspections.
- > Upgrading existing of vans and contractor buses with Australian Design Rule (ADR) 68 (Occupant Impact Protection on Buses) compliant Scania buses.
- > The introduction of Logistics Emergency Response Teams (ERT) at the Company's Ban Thouay and Thakhek logistics hubs.

AN ENGAGED WORKFORCE IS FOCUSED AND WILL SEE WHEN SOMETHING IS WRONG, REPORT IT, LEARN FROM IT, AND WORK TO PREVENT IT.

Incentivising safety challenges people to look for new ways of safely completing tasks, and in so doing, engages employees and remove complacency. This in turn nurtures ideas that drive process improvement, removes human error, improves business efficiencies, and increases safety outcomes.



Phu Kham mobile maintenance team receives their fifth CAT 5-Star contamination control rating, October 2017

As of 31 December, the Phu Kham mobile maintenance team achieved 1,728 days injury-free, equating to 4,843,496 hours worked without a recordable injury. The outstanding achievement can attributed to programs that have improved the safety culture of maintenance teams.

Caterpillar 5-star contamination control program

Introduced in 2013, the Caterpillar 5-star contamination control program is a proxy for excellence in housekeeping standards and practices and operational excellence. Mobile maintenance teams at Phu Kham and Ban Houayxai engage in rigorous processes to maintain their 5-star ratings. The teams must follow good safety management for housekeeping standards and practices, equipment reliability improvements, major component life extensions.

The program has strengthened the safety culture of maintenance teams and has yielded improved safety outcomes, and enhanced processes that are driving superior operational performances.

Toolbox

Toolbox safety meetings are held every morning for small groups of maintenance crews prior to commencing work. The meetings enhance and promote the participation of employees to highlight area-specific safety concerns, which has in turn improved overall safety awareness.

MyOSH program

The MyOSH program – a web-based asset and vehicle inspection database – was introduced in 2017 to address safety concerns stemming from a vehicle incident in 2013 and to prevent fraudulent vehicle inspections.

All Phu Bia Mining fleet vehicles that pass inspection receive an inspection sticker which security personnel are required to check every time a vehicle enters in Operation's perimeter. Scannable QR codes, which link back to the maintenance inspection database, were added to inspection stickers. The codes have given security personnel the ability to very quickly and effectively check the maintenance history of a vehicle.

For further information, see page 87 of PanAust's 2017 Business Review and Sustainability Report.

OUR PEOPLE

In 2017, the Company retained its milestone achievement of 91 per cent localisation of its workforce. The result demonstrates the benefits of its training and development programs for Lao employees.

3,293

Full-time employees

92

Average number of training hours per employee

62

Lao employees promoted to senior technical or team leadership roles

Localisation

Localisation relies on the training and development of Lao staff to meet the requisite skills and competencies required to perform a role to the desired level. Phu Bia Mining continually reviews and sets targets for the localisation of its workforce in Laos.

In 2017, the Company retained its landmark achievement of 91 per cent localisation. During the year, a total of 234 Lao employees throughout the business were either promoted, or had a role grade progression. Most notably, 62 Lao employees were promoted to senior technical or team leader roles, with an additional five being promoted to superintendent level. A number of ongoing formal initiatives and programs support the development of Lao employees are discussed below.

Leadership Development

Leadership development is delivered via two separate yet complementary programs: the Supervisory Skill Training Program and Leading the PanAust Way.

Supervisory Skills Training Program

In 2017, 166 Lao employees (including 26 women) graduated from the Supervisory Skills Training Program aimed at providing existing team leaders, supervisory and high-potential employees with the training required for success in frontline leadership roles.

Each participant completed more than 80 hours of structured training and post-course assignments. The program has contributed to the Company's ability to appoint Lao employees to senior roles and has reduced Phu Bia Mining's reliance on expatriate employees.

Leading the PanAust Way

Leading the PanAust Way is an internally designed and facilitated leadership development program which integrates key aspects of **The PanAust Way**, Vision and Values and strategy, a 360-degree feedback survey and a leadership development plan. The program aims to bolster the existing succession plan by developing an internal pool of leaders and potential leaders for the Company.

In 2017, the program was successfully rolled out to the manager level. The leadership capability model was introduced to the superintendent level, and will ultimately be rolled out to all employees.

Mentoring

The mentoring program is an internally run initiative to guide and encourage high-potential employees who have been identified as future leaders achieve their full potential. A formal program review of two initial programs in 2013 and 2017 concluded the program provided two-way benefits for the Lao mentees and expatriate mentors, which included enhanced job satisfaction and increased engagement.

A new 18-month mentoring program launched in November 2017, with a select group of 28 high-potential mentees from PanAust and Phu Bia Mining completing their preparatory training in late October. New mentors and existing mentors seeking refresher training completed their requisite training in October.

Trades Training Programs

Phu Bia Mining operates two distinct trades training programs. The first is a trades training program for maintenance employees, under which trades skills are assessed, and training plans put in place for each employee. The program was implemented in 2014, and at year end 2017 has resulted in 221 Lao employees progressing from Trades Assistant to Tradesperson level.

The second program is the Apprenticeship Program. Established in 2013, the Program offers a five-year apprenticeship in a technical trade, in partnership with the Lao-German Technical College in Vientiane. In October, the Company's first intake of apprentices graduated from the program (see case study on page x). A further 50 apprentices, including eight women, entered their final year of training in 2018.

Employment engagement

In May, Phu Bia Mining's parent company, PanAust conducted a Group-wide employee engagement survey entitled 'Your Say' to assess all aspects of the HR framework, localisation strategy, training and development plans and the employee lifecycle.

The survey was intended to inform the Company as to whether initiatives implemented following the employee engagement survey conducted in 2013 were having a positive impact, and gauge employee perceptions about impending mine closure. Feedback from 85 per cent of employees who participated in the survey was extremely positive.

CASE STUDY

> WAY AHEAD

FIRST INTAKE OF TRADES TRAINING APPRENTICES GRADUATE

PHU BIA MINING IS DEDICATED TO CULTIVATING A SKILLED LOCAL WORKFORCE WHEREVER IT OPERATES.

Established in 2013 and delivered in partnership with the Lao-German Technical College in Vientiane, Phu Bia Mining's Apprenticeship Program was introduced with the aim of developing qualified local tradespeople and reducing the Company's reliance on expatriate employees through increased localisation.



Trades Training apprentices celebrate their success with the Managing Director and several Company executives at their graduation ceremony, December 2017

Candidates for the program were required to undertake 12 months of pre-apprentice vocational training before entering the four-year apprenticeship program.

In October 2017, the Company's first intake of 34 apprentices, including five women, completed their final assessments and obtained an Australian Certificate III Trade Qualification and a Lao Higher Diploma of Technical Training. The apprentices completed a trade in one of the following fields: automotive electrical, heavy

vehicle plant mechanical, metal fabrication and welding, fitting and machining, and electrical. Upon graduation, the apprentices transitioned into full-time trade roles within the Company's fixed plant maintenance and mobile maintenance teams in December.

For further information, see page 61 of PanAust's 2017 Business Review and Sustainability Report.

