



## HARMONY – A PARTNER IN DEVELOPING PNG



**LAE CHAMBER OF COMMERCE  
BUSINESS BREAKFAST**

JOHANNES VAN HEERDEN - CEO SE ASIA

CHARLES DE VILLIERS - EGM OPERATIONS SE ASIA

MIKE HUMPHRIES – EGM EXPLORATION SE ASIA

28 AUGUST 2019

# PRIVATE SECURITIES LITIGATION REFORM ACT SAFE HARBOUR STATEMENT

This presentation contains forward-looking statements within the meaning of the safe harbor provided by Section 21E of the Securities Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended, with respect to our financial condition, results of operations, business strategies, operating efficiencies, competitive positions, growth opportunities for existing services, plans and objectives of management, markets for stock and other matters. These include all statements other than statements of historical fact, including, without limitation, any statements preceded by, followed by, or that include the words “targets”, “believes”, “expects”, “aims”, “intends”, “will”, “may”, “anticipates”, “would”, “should”, “could”, “estimates”, “forecast”, “predict”, “continue” or similar expressions or the negative thereof.

These forward-looking statements, including, among others, those relating to our future business prospects, revenues and income, wherever they may occur in this report and the exhibits to this report, are essentially estimates reflecting the best judgment of our senior management and involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. As a consequence, these forward-looking statements should be considered in light of various important factors, including those set forth in this presentation. Important factors that could cause actual results to differ materially from estimates or projections contained in the forward-looking statements include, without limitation: overall economic and business conditions in South Africa, Papua New Guinea, Australia and elsewhere, estimates of future earnings, and the sensitivity of earnings to the gold and other metals prices, estimates of future gold and other metals production and sales, estimates of future cash costs, estimates of future cash flows, and the sensitivity of cash flows to the gold and other metals prices, statements regarding future debt repayments, estimates of future capital expenditures, the success of our business strategy, development activities and other initiatives, estimates of reserves statements regarding future exploration results and the replacement of reserves, the ability to achieve anticipated efficiencies and other cost savings in connection with past and future acquisitions, fluctuations in the market price of gold, the occurrence of hazards associated with underground and surface gold mining, the occurrence of labor disruptions, power cost increases as well as power stoppages, fluctuations and usage constraints, supply chain shortages and increases in the prices of production imports, availability, terms and deployment of capital, changes in government regulation, particularly mining rights and environmental regulation, fluctuations in exchange rates, the adequacy of the Group’s insurance coverage and socio-economic or political instability in South Africa and Papua New Guinea and other countries in which we operate.

For a more detailed discussion of such risks and other factors (such as availability of credit or other sources of financing), see the Company’s latest Integrated Annual Report and Form 20-F which is on file with the Securities and Exchange Commission, as well as the Company’s other Securities and Exchange Commission filings. The Company undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this presentation or to reflect the occurrence of unanticipated events, except as required by law.

# AGENDA

- 1 Harmony Group update
- 2 Hidden Valley update
- 3 Contributing to the Morobe Kundu Vision 2048
- 4 Exploration in the Morobe Province
- 5 Wafi-Golpu update
- 6 Conclusion



# HARMONY GROUP UPDATE

Johannes van Heerden (Chief executive officer – SE Asia)

# HARMONY – AN ESTABLISHED DEVELOPING ECONOMY GOLD MINER



## PAPUA NEW GUINEA (PNG)

Production split:

FY19 **200koz (14%)**

Hidden Valley (open pit mine)

Wafi-Golpu project (50:50 JV)

Multiple exploration areas

## SOUTH AFRICA (SA)

Production split:

FY19 **1.24Moz (86%)**

9 underground operations

1 open pit mine

2 tailings retreatment operations

### Corporate profile:

- Listed on the JSE and NYSE
- Market cap: approx. >US\$1.5bn
- Operating for close to 70 years

### Expertise to mine in SA and PNG:

- Deep level expertise
- Efficient miners
- Strong stakeholder relations
- Credible brand

# GROUP OVERVIEW FOR THE YEAR ENDED 30 JUNE 2019

## Strategy

Safe, profitable ounces

and

Increasing margins

## Strategic pillars



Operational excellence



Cash certainty



Effective capital allocation



Responsible stewardship

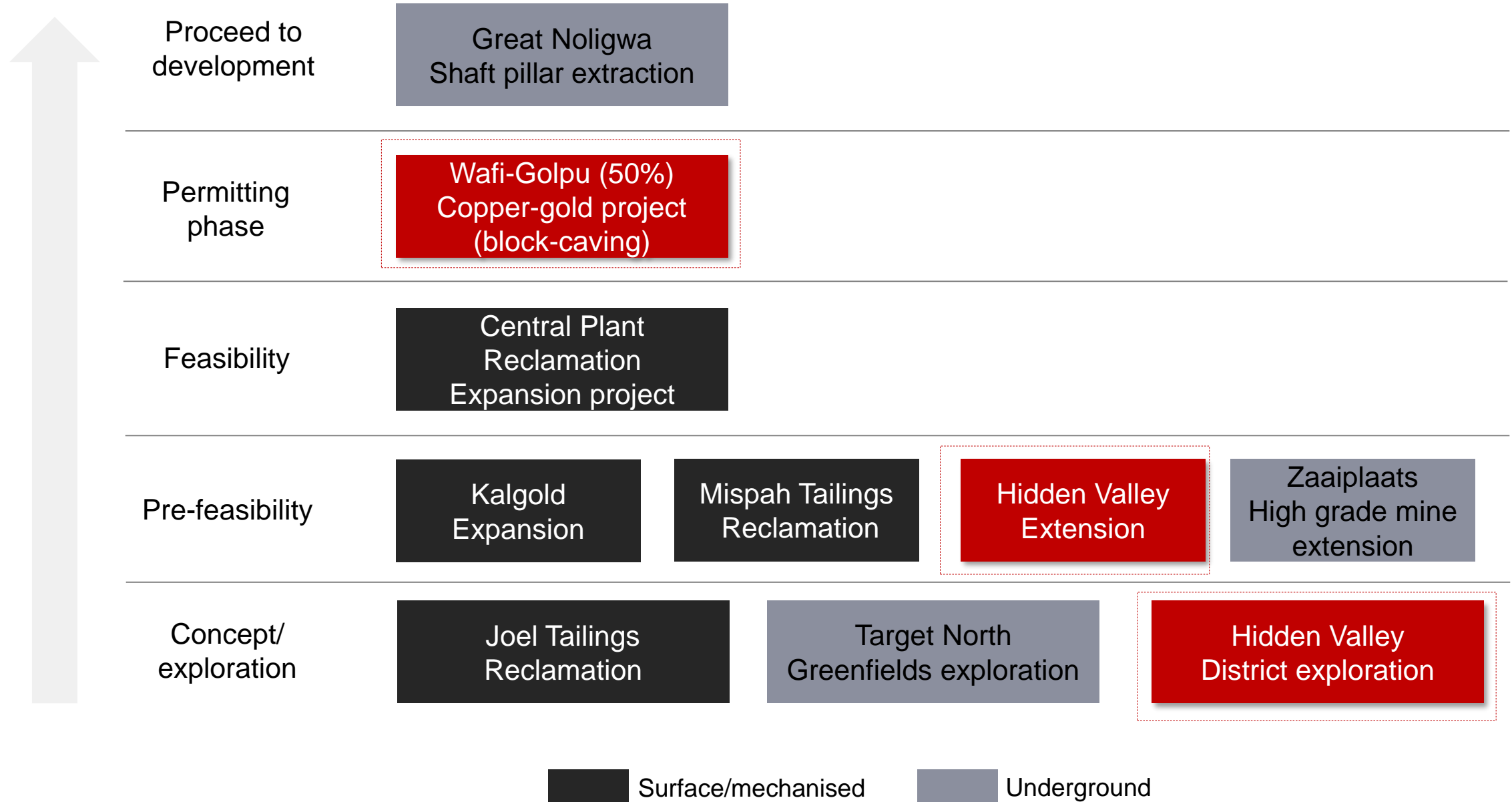
- Delivered in line with production guidance
  - 17% increase in gold production
  - 2% increase in underground recovered grade

- Successful hedging strategy topped up
  - secured cash flow margins
  - contributed US\$34 million to cash flow

- Moab Khotsong and Hidden Valley prove merits of investment case
  - generated US\$97 million in operating free cash flow

- Recognition received: i) Constituent of FTSE4Good Index  
ii) Carbon Disclosure Project (CDP) scores: climate change (A-), water (B)  
iii) Inclusion in 2019 Bloomberg Gender-Equality Index

# EVALUATING ORGANIC GROWTH PROSPECTS



# DISCIPLINED PROJECT EVALUATION AND MANAGEMENT

## Key areas

**Lower risk profile**

- Safety a priority
- Surface projects ranked higher
- Pillar mining is intensely scrutinised

**Improving margins**

- Ounce replacement and growth are aimed at increasing margins

**Generating returns**

- Project internal rates of return (IRR) to exceed 15%

**Affordability**

- Capital intensity is weighed against group cash flow projections and requirements

**Project management**

- Crucial for enhancing project return and ensuring operational momentum  
(Hidden Valley re-investment, Central Plant Reclamation – delivered safely, below budget and on schedule)



# FY20 FOCUS AREAS

## Strategy

Safe, profitable ounces  
and  
Increasing margins

## Strategic pillars



Operational excellence



Cash certainty



Effective capital allocation



Responsible stewardship

## Focus areas

- Improve safety performance
  - Drive increase in productivity and efficiency
  - Plan to produce 1.46Moz at an all-in sustaining cost (AISC) of R579 000/kg
- Focus on repaying debt
  - Continue hedging strategy to manage short term volatility
- Secure Wafi-Golpu permitting and funding
  - Evaluate organic growth and value accretive M&A opportunities
- Maintain strong stakeholder relationships through engagement and collaboration
  - Continue to demonstrate responsible corporate citizenship, good governance and environmental management



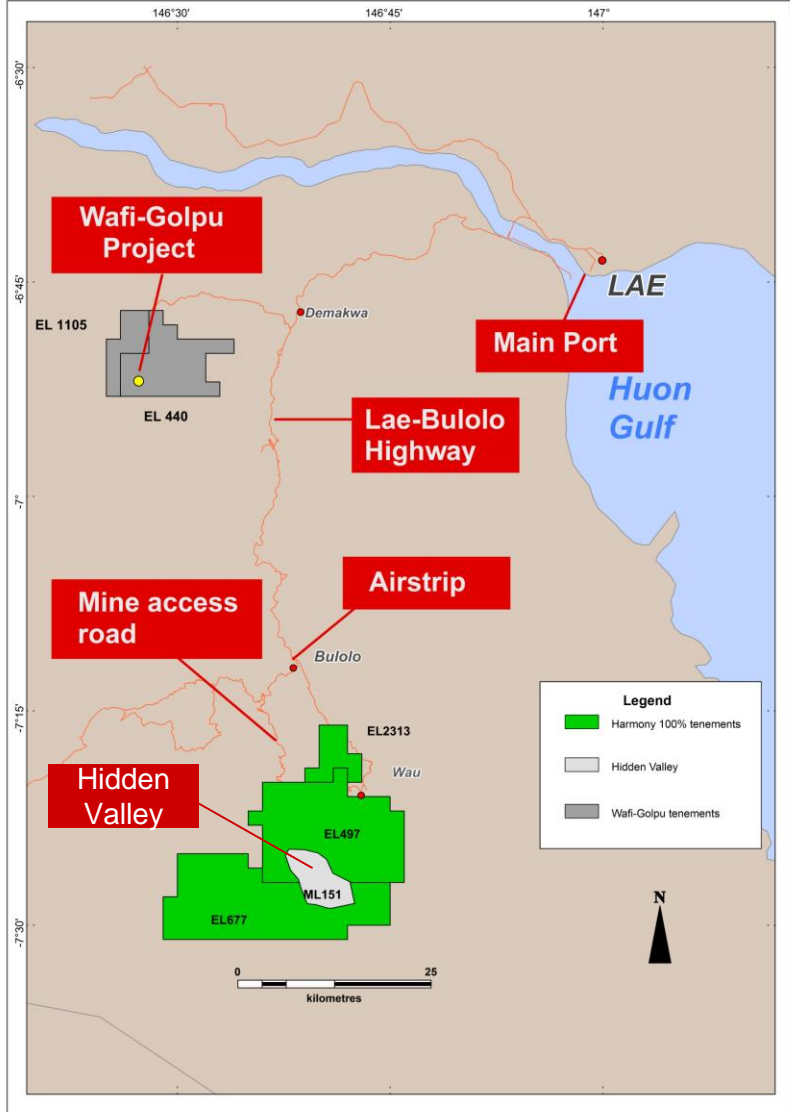
## HIDDEN VALLEY UPDATE

Charles de Villiers (Executive general manager – Operations)



# HIDDEN VALLEY MINE – LOCATION AND SITE LAYOUT

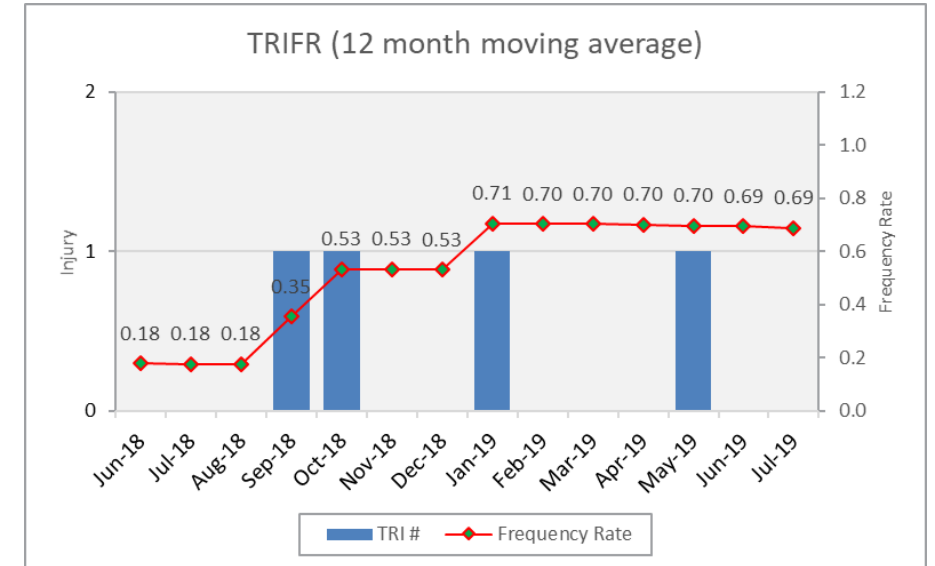
Gold and silver open-pit mine located in the Morobe Province, producing since 2009





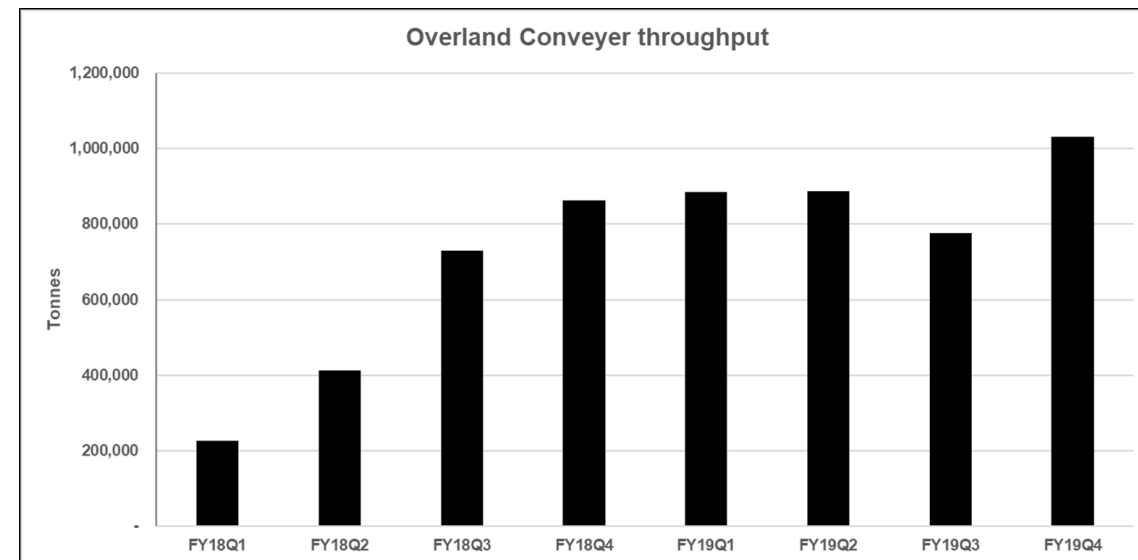
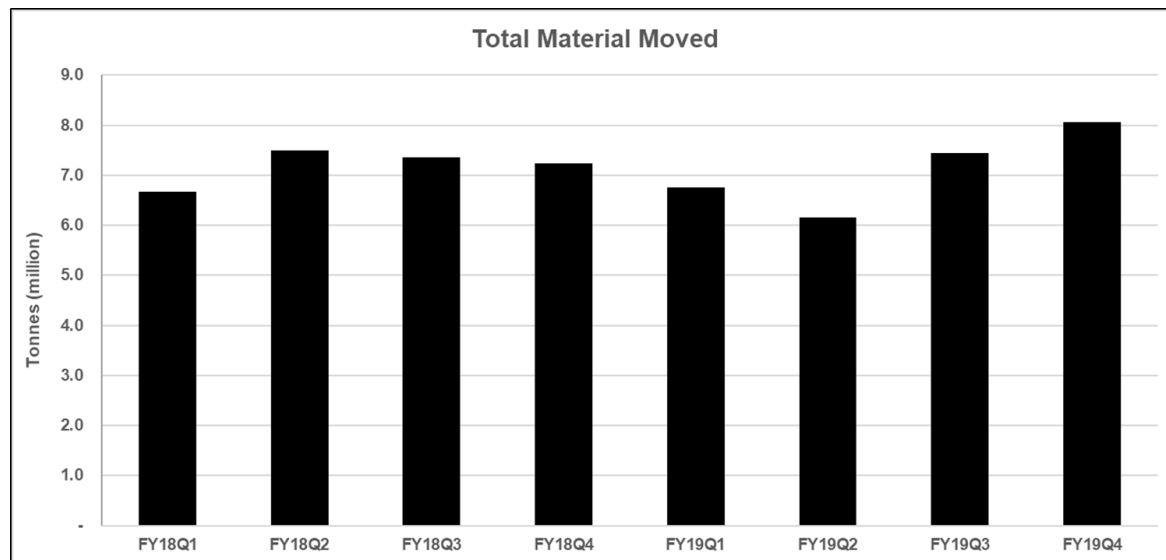
# WORLD CLASS SAFETY PERFORMANCE

- Risk-based, proactive safety approach
- Achieved 1.75 million fatal free shifts on 2 July 2019
- Improved safety trends:
  - All Injury Frequency Rate (AIFR) of 2.95 achieved
  - Achieved 750 days (>2 years) of Loss Time Injury (LTI) free in May 2019
- Safety and risk management system successfully implemented February 2019
  - Application used on mobile devices in the field
- Automated controls implemented
  - Collision Awareness, Fatigue Detection and Personal Protective Systems



# OPERATIONAL EXCELLENCE

- FY17 and FY18: re-investment phase delivered safely, on schedule and below budget
- FY19: achieved production guidance of 200 000oz @ an AISC of US\$ 1 090/oz
- Focused on operational improvement and productivity
  - Achieving record mining rate - 30 million tonne per annum
  - Achieving record conveyor belt performance - 1.03 million tonne in Q4



# TAILING STORAGE FACILITY (TSF) MANAGEMENT

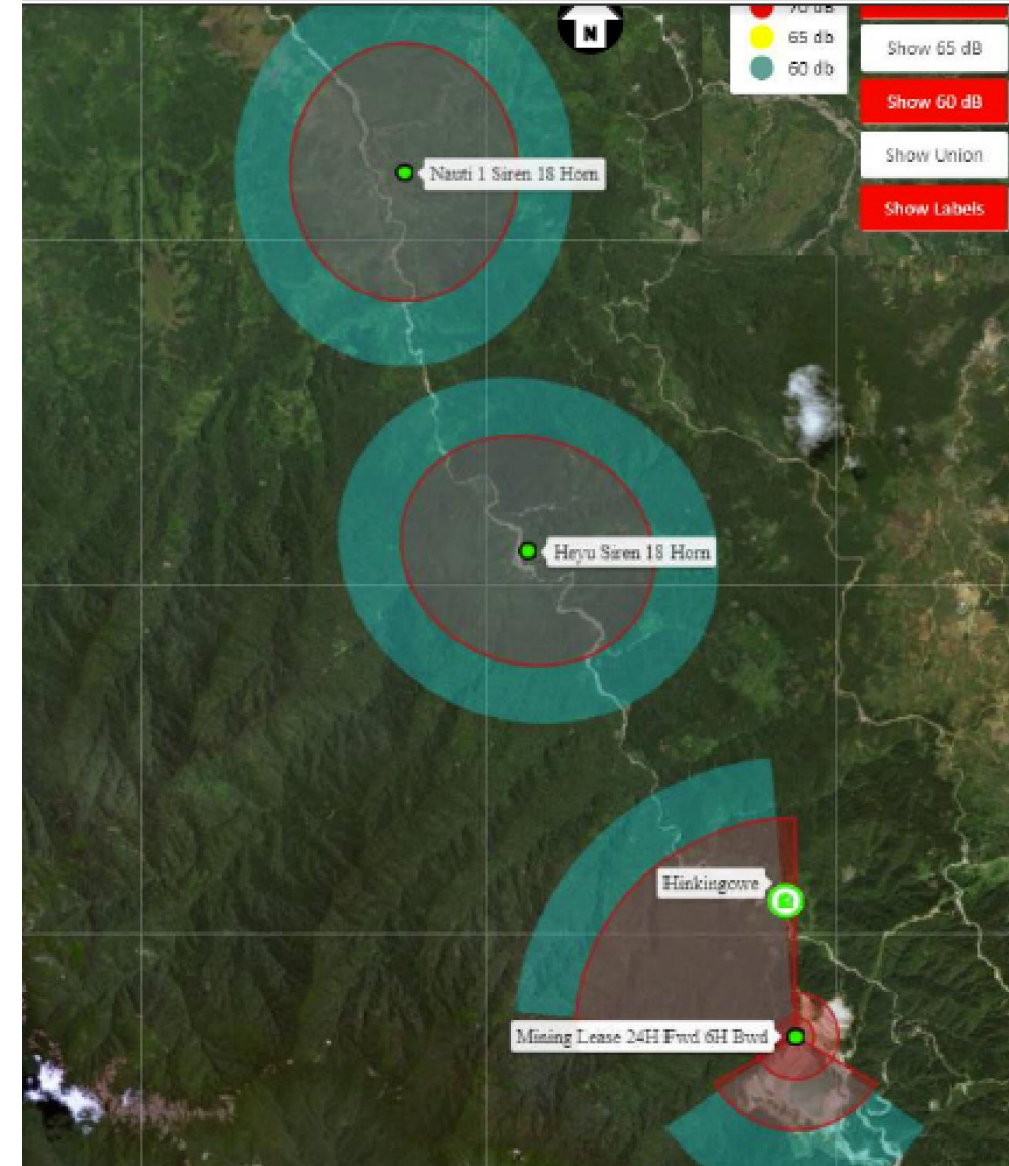
- The only major TSF in Papua New Guinea
- Downstream and centreline design – not an upstream design
- Designed to ANCOLD\* standard by KCB (consultant)
  - Independent peer review by GHD (consultant)
  - Independent Technical Review Board (ITRB) appointed by Harmony
  - Designed to withstand 1:10 000 year earthquake
- Latest design approved by Chief Inspector of Mines



\*Australian National Committee on Large Dams

# TSF STAKEHOLDER MANAGEMENT

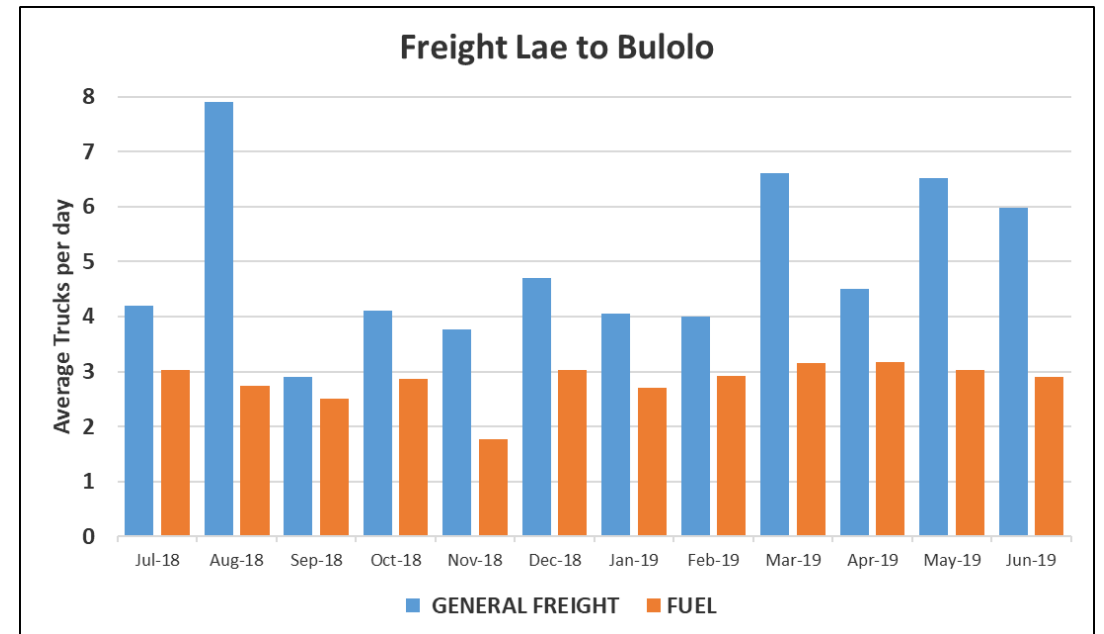
- Downstream communities' awareness and preparedness to respond appropriately in a breach event (which is extremely unlikely)
- 3<sup>rd</sup> round of breach modelling completed
- Several scenarios modelled with worst case
  - 1:10 000 year earthquake
  - 1:1000 year 30 day rainfall event
  - 117mm/day rainfall event within the 30 days
- Maintaining awareness program informing and educating downstream communities
- Engaged consultants to scope and install stand-alone remote emergency warning siren system





# WAU LAE HIGHWAY

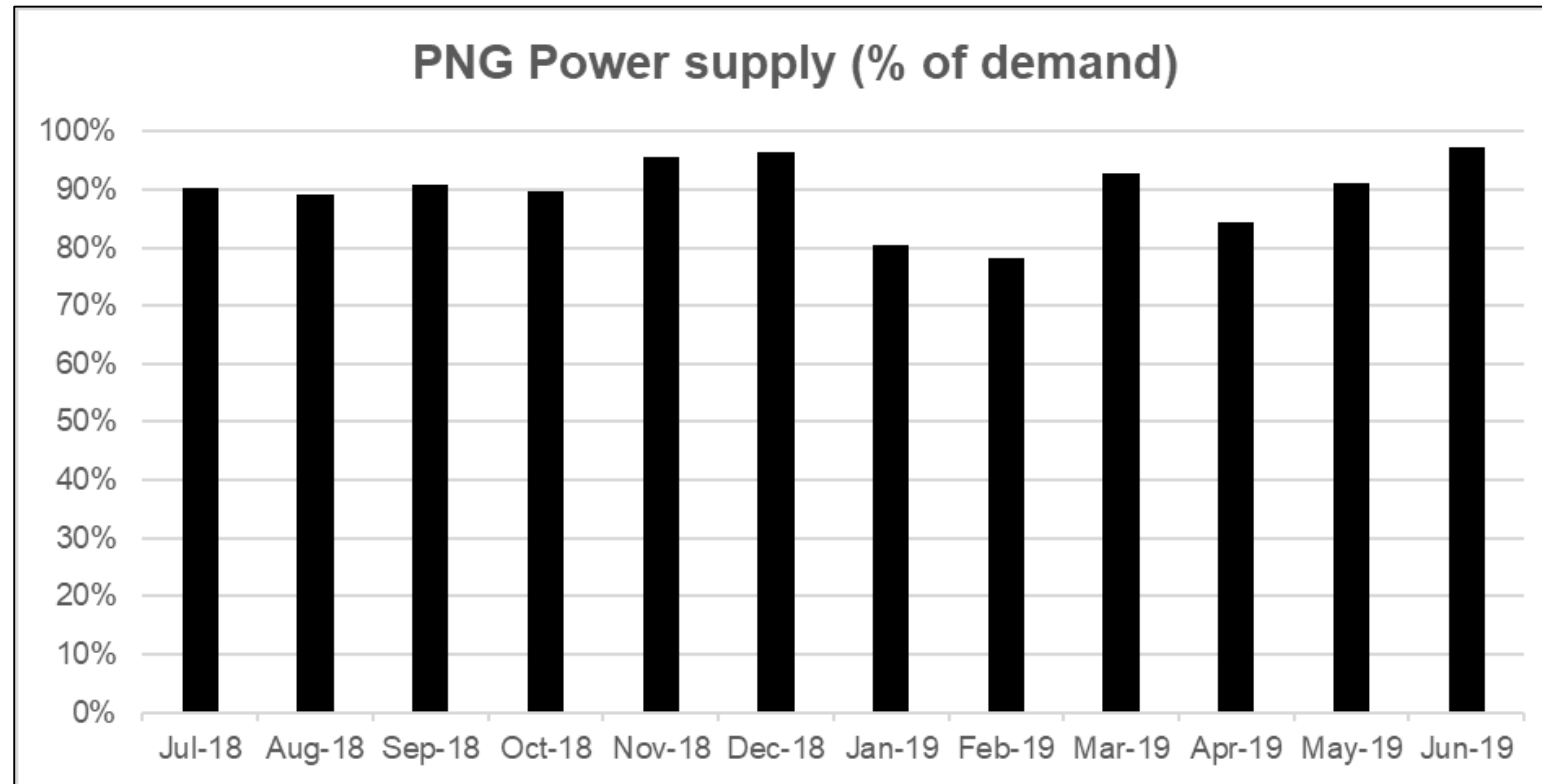
- Lae to Wau highway critical economic corridor for Morobe Province
- Wau/Bulolo 2<sup>nd</sup> largest population in Morobe Province outside Lae city
- Highway critical supply route for various businesses, including Hidden Valley
- Harmony and PNGFP mobilised resources to keep logistics route open
- Lack of Government funding inhibiting Department of Works efforts
- Collaborative effort by private sector, Department of Works and Transport Sector Support Program (funded by Australian government aid) to improve trafficability





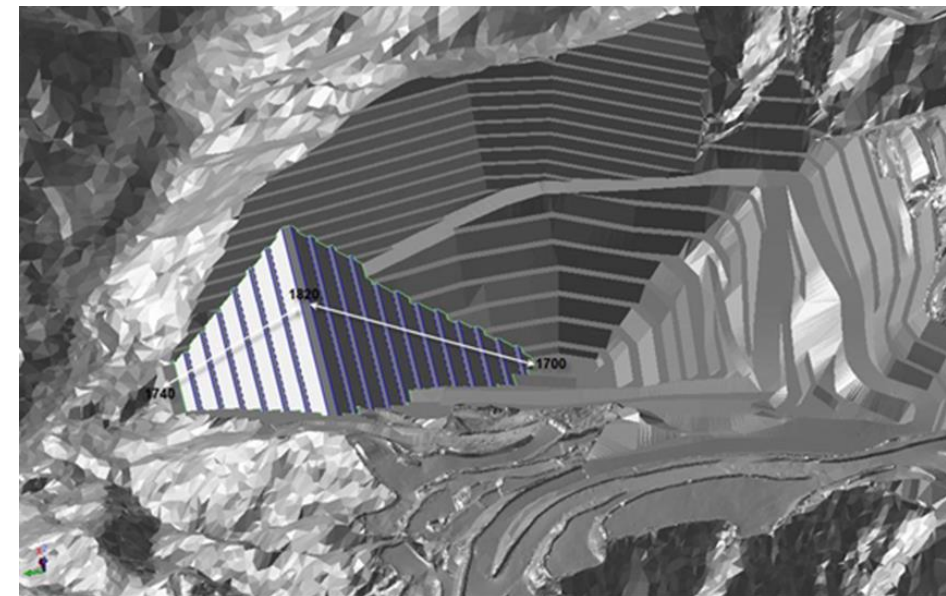
# PNG POWER

- 16MW demand – connected directly to Ramu grid
- PNG Power invoice averages K4.7 million per month
- Collaborative effort with PNG Power to improve reliability of Ramu grid transmission and generation



# FUTURE OF HIDDEN VALLEY

- Hidden Valley will be at a crossroads within 24 months – reinvestment or closure within 5 years
- Current life of mine 4 years (without extension study) – detailed draft closure plan submitted to Conservation and Environment Protection Authority (CEPA)
  - Commenced engagement with CEPA to approve environmental aspects of the plan
  - Engagement with Mineral Resources Authority (MRA) regarding safety and social matters post closure to start shortly
- Pre-feasibility study for life of mine extension completed
  - 2-3 years brownfields extension ( $\pm$  200koz/gold annum)
  - Requires a new tailings storage facility – currently Hamata pit seems a viable option





# CONTRIBUTING TO THE MOROBE KUNDU VISION 2048

Johannes van Heerden (Chief executive officer – SE Asia)

# HARMONY CONTRIBUTES TO THE MOROBE VISION

- Morobe Kundu Vision 2048:
  - Morobe will become a prosperous, healthy, educated and self-sufficient society by 2048
    - Policy Goal Area 1: Good governance and management
    - Policy Goal Area 2: Sustainable and robust economic development
    - Policy Goal Area 3: Physical infrastructure development
    - Policy Goal Area 4: Growth and service centre for development
    - Policy Goal Area 5: Integral human development
  
- Significant investment required to deliver the Morobe Vision – with a key element highlighted as sustainable and robust economic development:
  - Harmony has contributed K2.9 billion to Morobe Province through investment in the last 16 years at the Hidden Valley mine, the Wafi-Golpu project and exploration within the province
  - These investments have delivered significant regional benefits through royalties and taxes, local procurement and contributions to infrastructure, whether roads, health, education or agriculture
  - Continued investment in the Hidden Valley mine, the Wafi-Golpu project, exploration and related social programs will continue to contribute to the delivery of Kundu Vision



## HARMONY'S CONTRIBUTION TO PNG

# HIDDEN VALLEY'S DIRECT CONTRIBUTIONS > PGK5 BILLION OVER LAST 10 YEARS

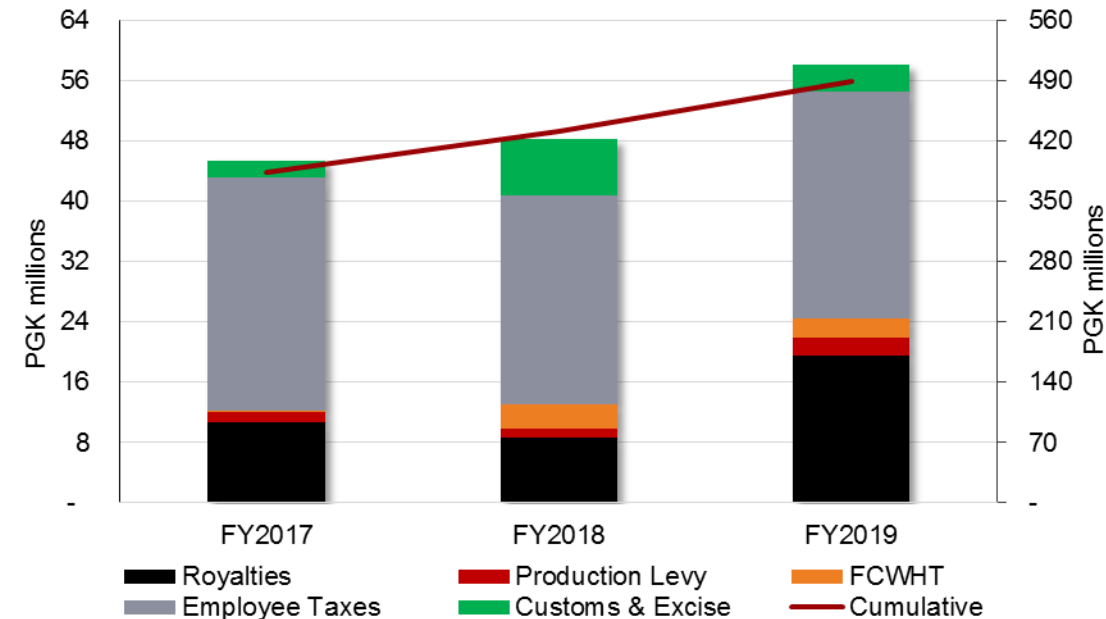
- Hidden Valley contributed K618.8 million during FY19 to the regional and national economy

Direct benefit streams for FY19	PGK million
Total employee salaries (excluding tax)	72.5
Salary and wages tax	30.0
Royalties and production levy	21.9
Benefit share contributions	1.7
Local procurement (excluding PPL power)	435.9
Power purchased from PPL (PNG)	56.8
<b>Total benefits</b>	<b>618.8</b>

- Hidden Valley has contributed K489 million in royalties and direct paid taxes in the last 10 years

Description	Currency	Before FY2017	FY2017	FY2018	FY2019	Total
Royalties	PGK'M	91.8	10.7	8.7	19.5	130.6
Production Levy	PGK'M	11.0	1.3	1.2	2.4	15.9
FCWHT*	PGK'M	22.2	0.3	3.2	2.5	28.2
Employee Taxes	PGK'M	208.5	30.9	27.8	30.0	297.1
Customs & Excise	PGK'M	3.9	2.3	7.4	3.6	17.2
<b>Total</b>	<b>PGK'M</b>	<b>337.4</b>	<b>45.4</b>	<b>48.2</b>	<b>58.0</b>	<b>489.0</b>

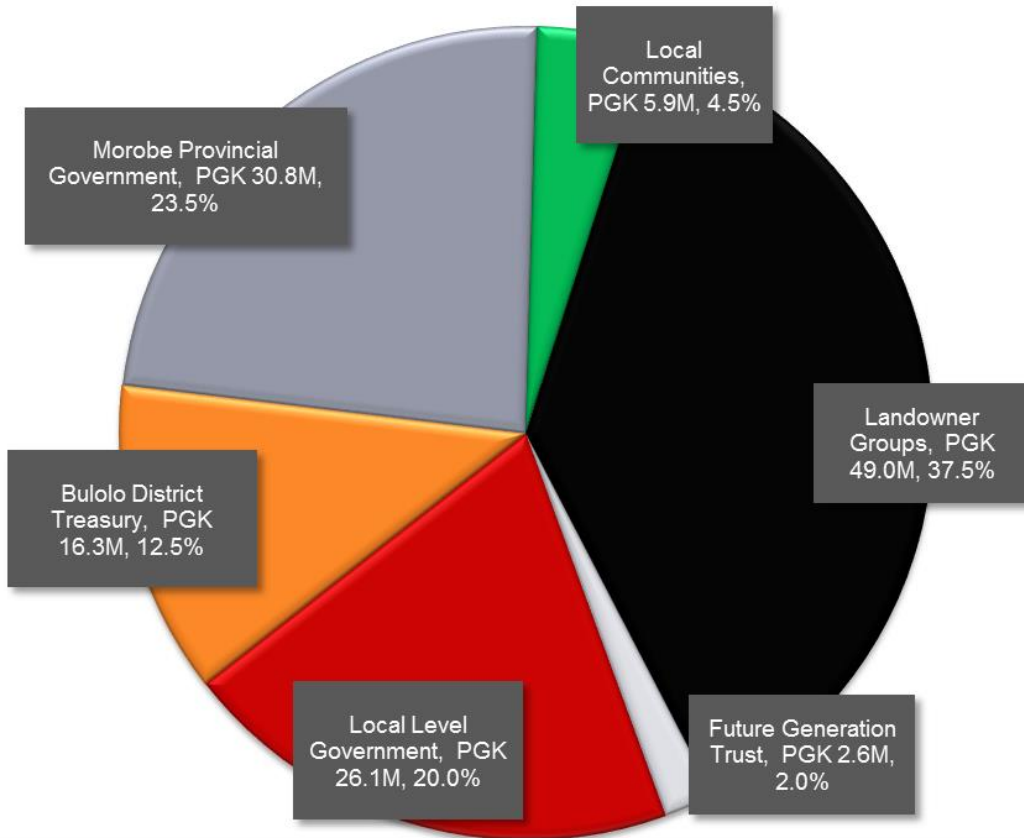
\*FCWHT – Foreign Contractors Withholding Tax



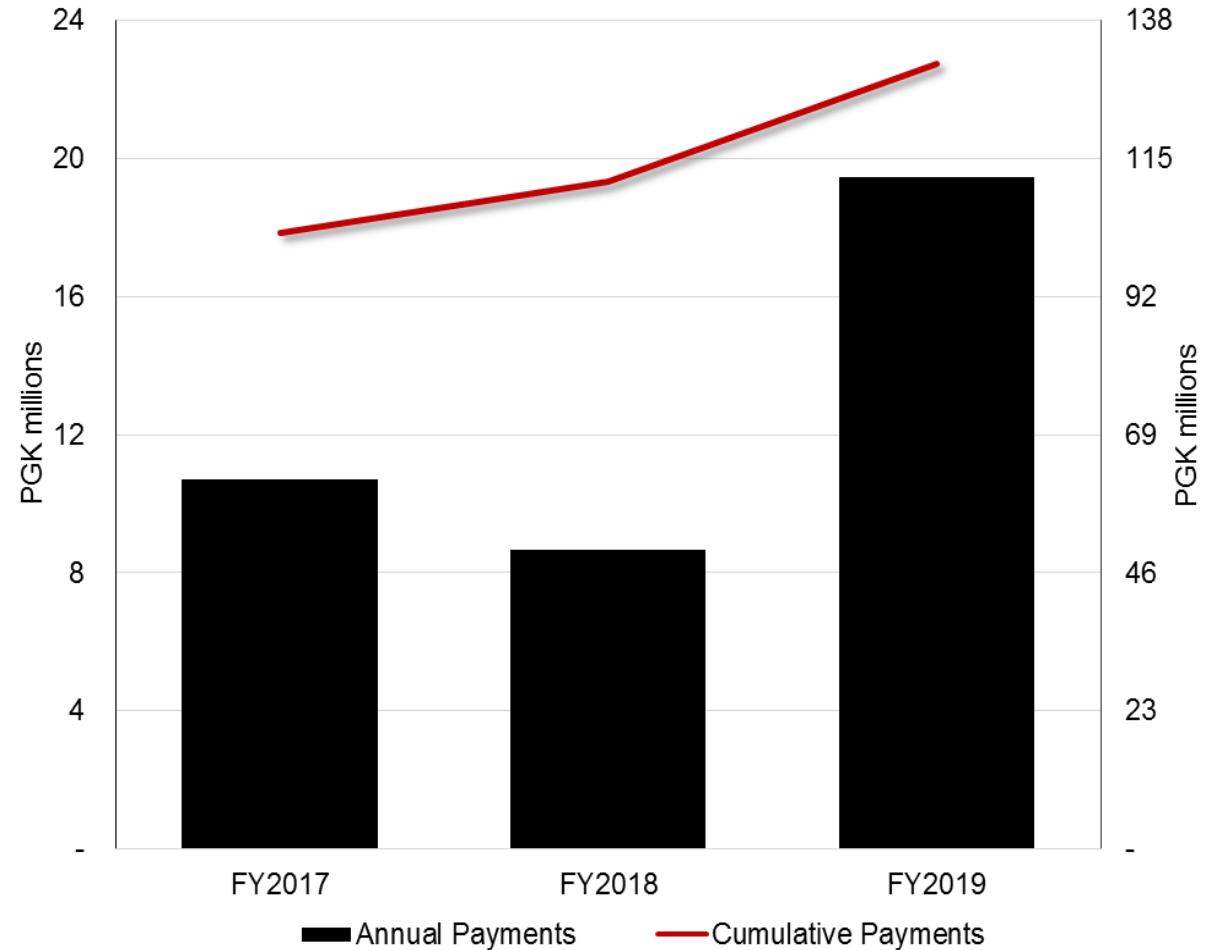
# ROYALTY PAYMENTS

- Hidden Valley has paid out K131 million in Royalties as at 30 June 2019
- K39 million has been paid since Harmony's re-investment (FY17 – FY19)

Royalty distribution



Royalties (2%) paid till June 2019 - PGK130.6M





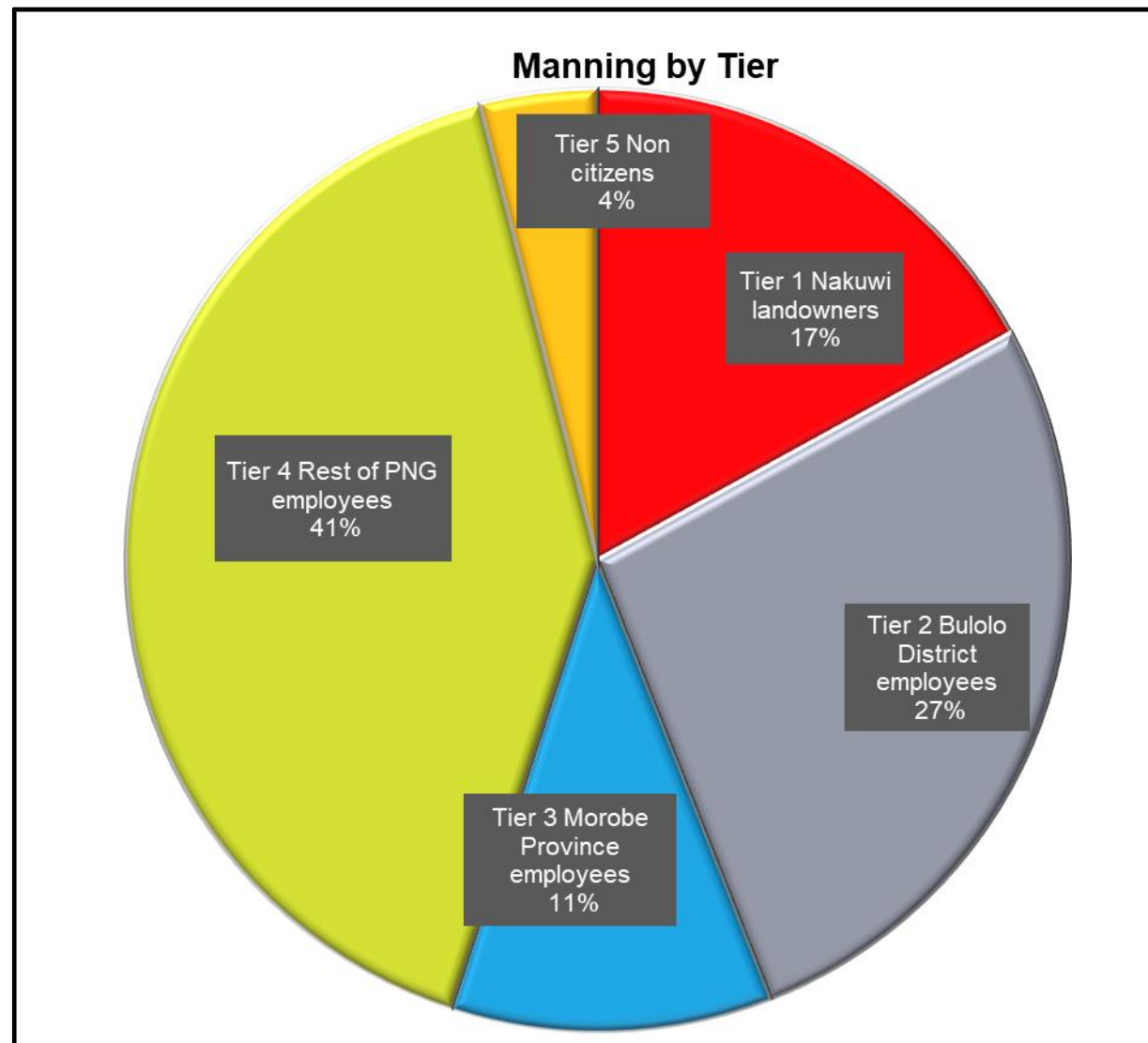


## EMPLOYEE DEVELOPMENT



# HIDDEN VALLEY CREATED 2 000 JOBS

- Total direct employees 1280 - 1320
- Total contractors 550 - 700
- 72% permanent workforce based in Morobe Province
- >95% Papua New Guinea resourced
- 14% of workforce female
- 24% of truck operators female
- 2 100 green hire operators trained since 2009
- 604 heavy equipment operators from local communities trained
- K1.1 billion paid in salary and wages over life of mine





# **SOCIO-ECONOMIC DEVELOPMENT PROJECTS AND PROGRAMMES**

# AGRICULTURE PROJECTS – WAU BULOLO

- Improve livelihoods of communities through sustainable agricultural businesses
- Over 100 farmers have been engaged and are being trained
- Training focused on coffee husbandry and farm management, nursery development and postharvest handling
- Three coffee nurseries constructed with over 6,000 Typica (Blue Mountain) variety seedlings
- Basic farming tools distributed to 82 farmers
- First harvest of coffee moved to market early in July – K50 000 revenue generated





# COMMUNITY DEVELOPMENT PROJECTS

- Bulolo Police Station sanitation and fencing work completed
- 1,673 polio and cervical cancer vaccinations administered
- Mabung and Kwembu bridges rehabilitation project commenced
- Assessment being carried out on landowner village access roads for rehabilitation – working with district and local level government
- Trial commenced of household solar lighting kits, biomass stoves and Wonder Bag Cooking system
- Detailed plan for Wau Clinic upgrade progressing well
- Rural electrification workshop planned before December 2019 (PNG Power and Bulolo district)

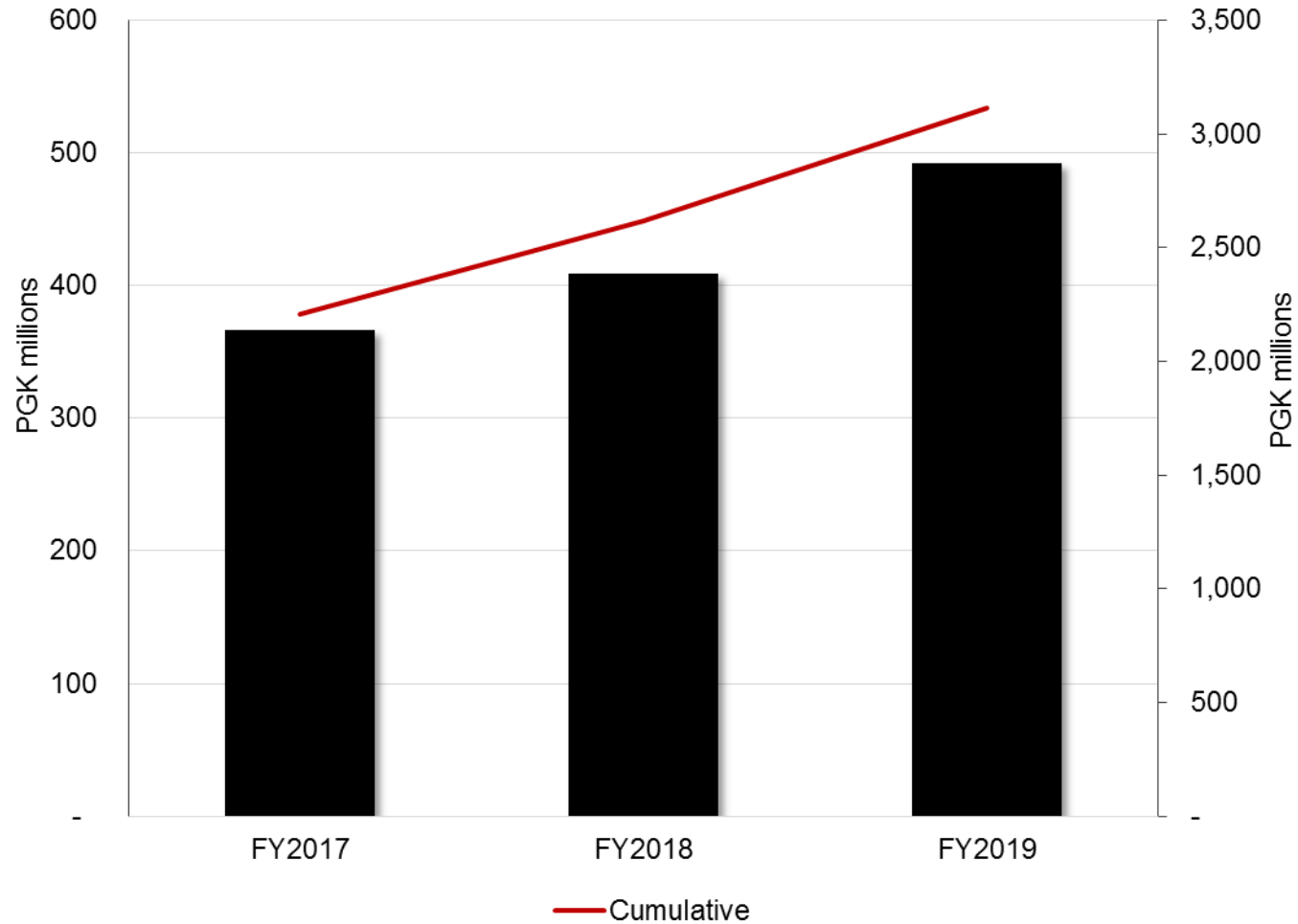




## INVESTMENT IN REGIONAL PROCUREMENT

# LOCAL SUPPLIER SPEND IN PNG

Total Cash Flow to Suppliers in PNG from FY2013 till end of FY2019  
- PGK3,112M



## Top PNG suppliers

- NKW Holdings Limited (NKW) (100% landowner company)
- NCS (Hidden Valley) Limited (100% owned NKW)
- Hidden Valley Contractors (JV between NKW and HBS)
- UMW Niugini Limited
- Hidden Valley Transport (100% owned NKW)
- Hevilift Limited
- Puma Energy PNG Limited
- PNG Power Limited
- Quest Pacific Services (JV between NKW and QPD)
- Link PNG Limited (Air Niugini)

56% of K493 million PNG procurement spend in Morobe province

# NKW – A SUCCESSFUL LANDOWNER COMPANY

- Nakuwi is the recognised landowner association, with NKW being their business arm
- NKW Holdings Limited – owned by Nauti, Winima and Kwembu Investment companies
- NKW involved in a number of key mine support contracts
- Benefits paid through dividends; social contribution contract
- Now 100% owners of Road Logistics contract and Camp and Catering Management contract
- Expenditure with landowner companies totalled PGK121 million in FY19 including:
  - HVC (JV with NKW)    Equipment hire
  - NCS (JV with NKW)    Catering
  - HVT (JV with NKW)    Transport
  - QPS (JV with NKW)    Drilling
- Approximately 450 contract employees







# EXPLORATION IN THE MOROBE PROVINCE

Mike Humphries (Executive general manager – Exploration SE Asia)



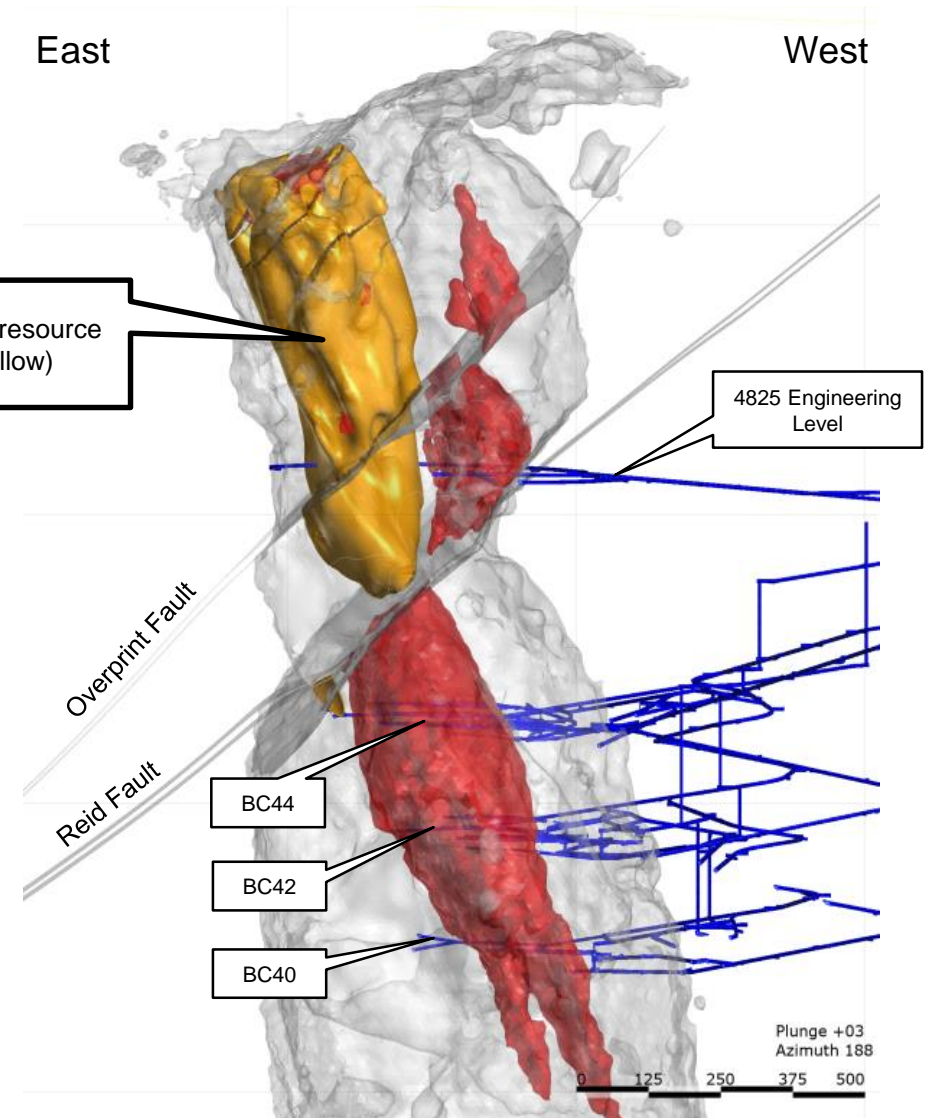
# HARMONY'S EXPLORATION INVESTMENT IN THE MOROBE PROVINCE HAS CREATED VALUE FOR STAKEHOLDERS

- **Active explorer (and developer) in the Morobe Province since 2004**

- ~1 Billion Kina invested in Morobe exploration and deposit development
- Long term investment based on
  - stable transparent mining regime,
  - community and government support
  - infrastructure and communications network
  - law and order
- In excess of 362,000 meters drilled (858 holes)
- Committed professional exploration team
- Developed systems and innovative drilling solutions
- New discoveries: Nambonga (2008), Golpu (2010)
- Hidden Valley mine extension studies

- **Golpu extension discovery now recognised as a project of National significance and key economic driver for the province**

- Prior 33 year history as a sub economic deposit with no development potential

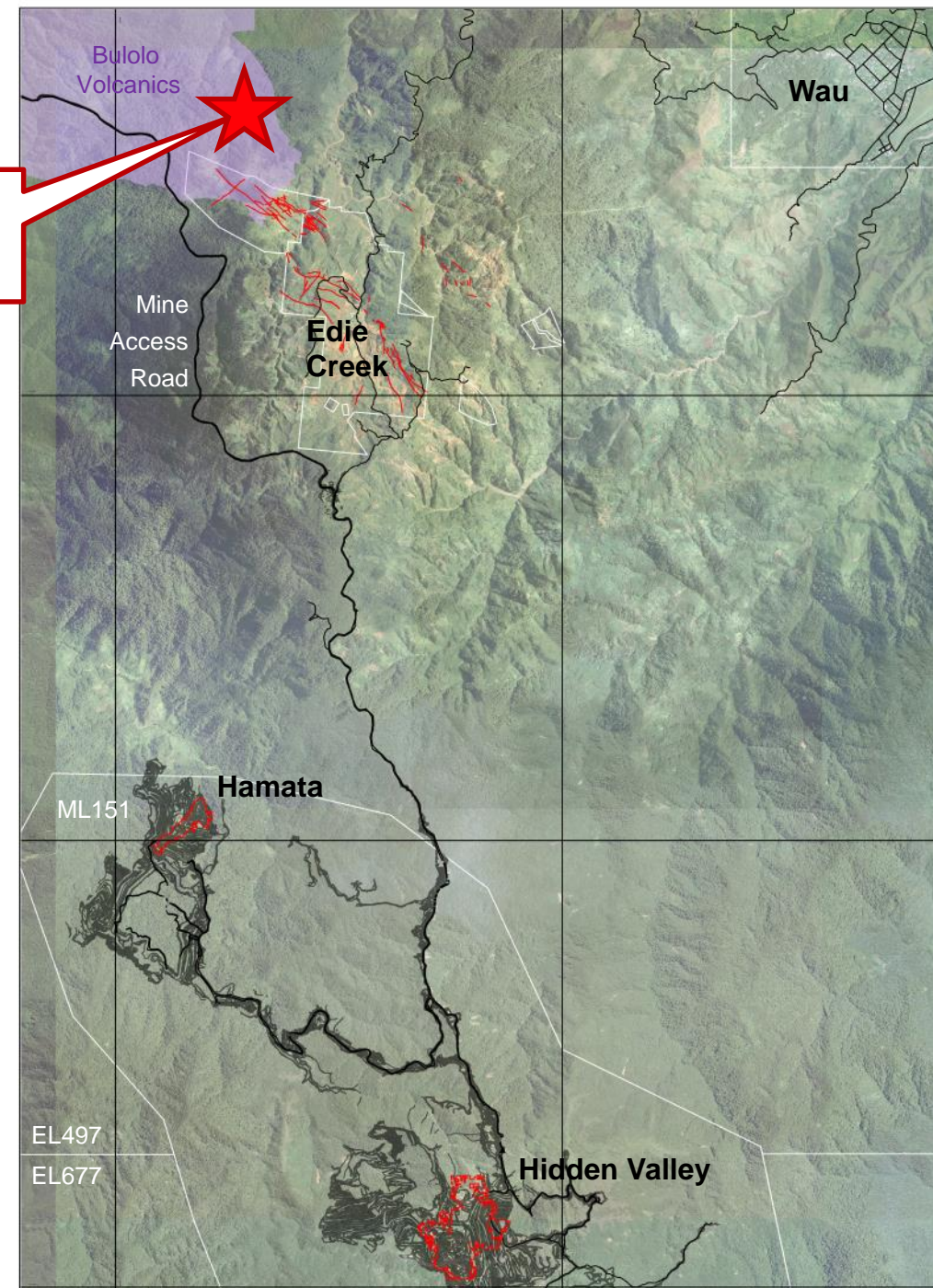


Golpu resource grade shells (0.2% Cu: Grey; 2% Cu: red) showing planned access development levels (looking ~south)

# EXPLORATION IS ONGOING: HIDDEN VALLEY UPDATE

- Brownfield work focus to extend mine life at Hidden Valley Mine and leverage infrastructure
- Latest exploration target area generated north of the Hidden Valley Mine
  - 14km via the mine access road to the Hidden Valley crusher pad
  - Potential for high-grade epithermal gold veins like K92 & Edie Creek
  - Target area masked by Bulolo Volcanics with no previous drilling / exploration
- Drilling scheduled to commence in September 2019

**Webiak  
Target area**



*Location plan 5 km grid squares*



# EXPLORATION REACHES REMOTE COMMUNITIES AND PROMOTES DEVELOPMENT OF LOCAL ECONOMIES

- Work programs generate employment and training opportunities:
  - Wau exploration base permanent staff
  - Local casual labour
  - Flow on employment with contractors (drilling, assays, helicopter)
  
- Local Businesses and procurement:
  - NKW, Kumbeleng Services, Ruarik Asset Protection Services, Wawiye Transport
  - Bishop brothers, Brian Bell, Andersons, Pine Lodge, PNG Forest Products
  - QPS; recent landowner start-up drilling company (JV with QED)



Roger Yapu; Employed as a local offsider at Wafi-Golpu, trainee Driller at Kili Teke, now Driller at Hidden Valley



# WITH TANGIBLE CONTRIBUTIONS TO THE COMMUNITY

Harmony – a partner in developing PNG



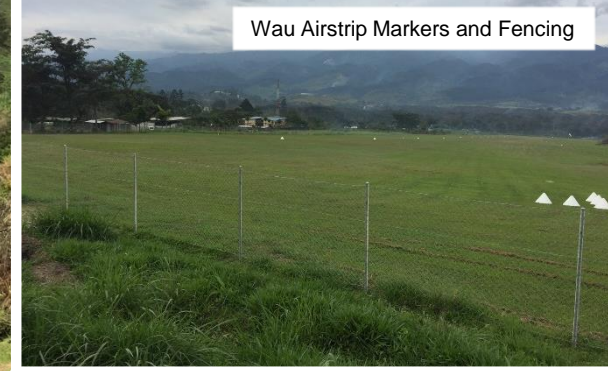
Wau Elementary Materials



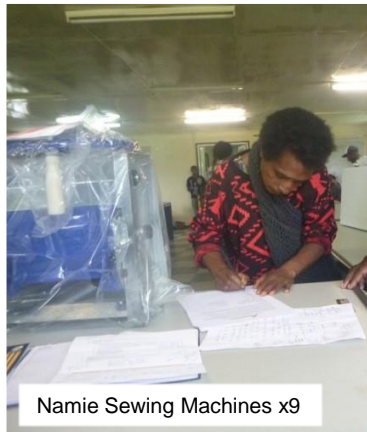
Namie Teachers Accommodation



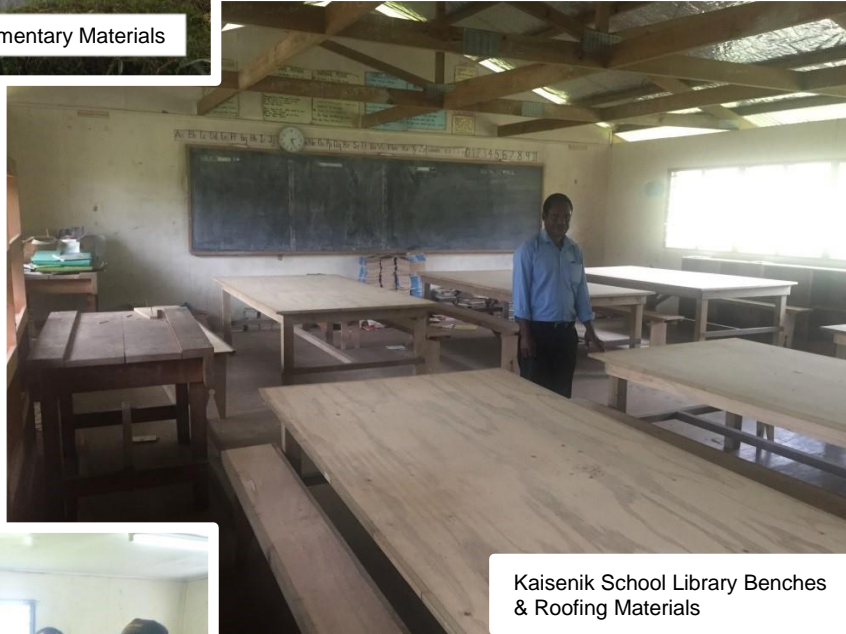
4 Mile Water Project



Wau Airstrip Markers and Fencing



Namie Sewing Machines x9



Kaisenik School Library Benches & Roofing Materials



Haus Pikinini Book Donations



Pine Top Bridge and Road Repairs



Namie Coffee Pulpers x8



Plankwater Basketball Backboard



Wau Ecology Road Improvement







# WAFI-GOLPU UPDATE

## WAFI-GOLPU PROJECT CAN DELIVER SUBSTANTIAL BENEFITS TO ALL STAKEHOLDERS

### Large production profile

- Steady state production: in excess of 1.4 million gold equivalents ounces per annum
- Capital construction cost US\$2.8 billion (Kina 9.5 billion\*)

### High grade = low unit cost production

- High average grades: Au = 0.90g/t, Cu = 1.27%
- Lowest decile cost quartile copper production, Negative AISC of US\$2 128/oz in gold production terms

### Significant free cash flow potential

- US\$9 billion (K30.6 billion\*) free cash flow generated in first 10 years (post achieving commercial levels of production)

### Large resource and long life

- Mine life of over 28 years

\* All figures are quoted on a 100% basis. The Wafi-Golpu project is held in a JV with Newcrest Mining Limited (Newcrest). For full resource and reserve declarations please refer to either [www.harmony.co.za](http://www.harmony.co.za) or to Newcrest's Annual Statement of Mineral Resources and Ore Reserves as at [www.newcrest.com.au](http://www.newcrest.com.au). Construction cost based on December 2017 real estimates. US dollar numbers converted at Kina 3.4 to the US\$.

# WAFI-GOLPU PERMITTING UPDATE

- Targeted permitting timelines have not been achieved
- Committed to re-commencing constructive negotiations with the newly appointed PNG government and stakeholders
- Updated timelines will be shared once available
- WGJV project workforce and contractors reduced as planned advanced exploration and infrastructure development activities delayed, focus now on the permitting process

## WAFI-GOLPU PERMITTING UPDATE CONTINUED

- Application for Special Mining Lease (SML) lodged in August 2016
- Feasibility Study Update submitted March 2018 and Environment Impact Study (EIS) submitted June 2018
- For the grant of a special mining lease the following agreements and permits are required:
  - Mining Development Contract (with State)
  - Memorandum of Agreement (with landowners, Morobe Provincial Government etc.)
  - State equity acquisition agreement (with State)
  - Fiscal stability agreement (with State)
  - Environmental permit (CEPA)



# WAFI GOLPU COMMUNITY DEVELOPMENT PROJECTS

## AGRICULTURE

- Ongoing support for cocoa production – training, materials and nursery establishment
- Participation of WGJV's Agribusiness team in study tour to ENB Province to visit Cocoa Research Centre and model cocoa farmers
- Fresh produce program in progress; initial testing for soil fertility and meteorology completed



## HEALTH AND EDUCATION

- 6 000+ girls received cervical cancer vaccinations in conjunction with government health professionals
- Maintenance work completed at various village aid posts
- Continuing support for adult literacy and numeracy classes
- Maintenance activities at primary schools and provision of school materials



## **CONCLUSION:**

**MINING IS AN IMPORTANT CONTRIBUTOR TO ECONOMIC DEVELOPMENT IN PNG AND THE MOROBE PROVINCE**

# MINING CAN UNLOCK SIGNIFICANT BENEFITS

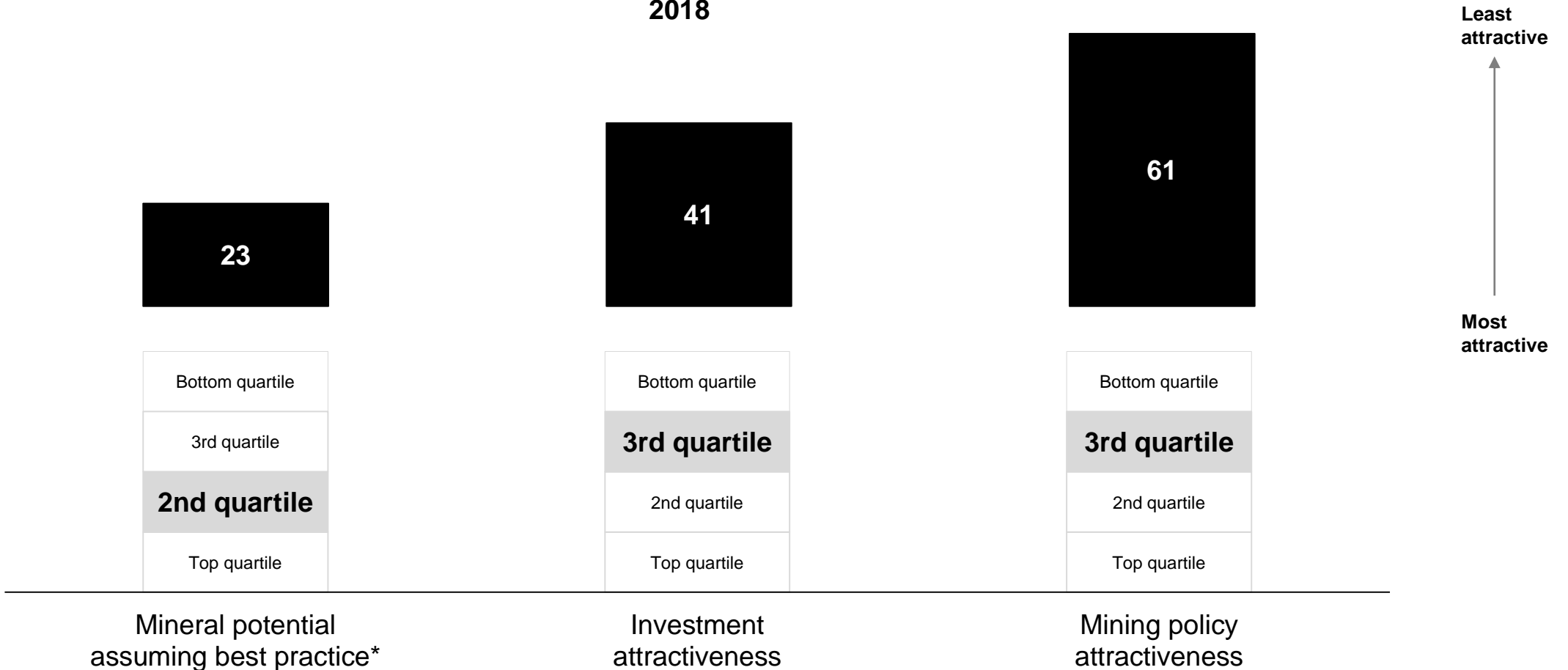
- World Bank analysis<sup>1</sup>:
  - Natural resources play a dominant economic, social and political role in the lives of 3.5 billion people living in 81 countries
  - “With good governance and transparent management, the revenues from extractive industries can have an impact on reducing poverty and boosting shared prosperity, while respecting community needs and the environment”
- Resource industry in Papua New Guinea<sup>2</sup>:
  - 26% of PNG’s GDP and around 80% of the nation’s export revenue derived directly or indirectly from mining
  - Mining directly employed over 20,000 people, and 30,000 more people in businesses that depend on the resource sector
- Mining is integral to economic growth, and is critical to significant, long-term social and economic development

1. <https://www.worldbank.org/en/topic/extractiveindustries/overview#1>

2. [http://www.pngchamberminpet.com.pg/images/news/MRc19-10\\_Media\\_Release\\_18.08.19\\_-\\_Resource\\_Industry\\_will\\_continue\\_to\\_invest\\_in\\_PNG\\_.pdf](http://www.pngchamberminpet.com.pg/images/news/MRc19-10_Media_Release_18.08.19_-_Resource_Industry_will_continue_to_invest_in_PNG_.pdf)

# MINING POLICY KEY TO UNLOCKING MINERAL POTENTIAL

PNG's ranking according to the Fraser Institute's Annual Survey of Mining Companies  
2018



Ranking out of 83 jurisdictions

\* Shows the mineral potential of jurisdictions, assuming their policies are based on “best practices” (i.e., world class regulatory environment, highly competitive taxation, no political risk or uncertainty, and a fully stable mining regime). In other words, this figure represents, in a sense, a jurisdiction’s “pure” mineral potential, since it assumes a “best practices” policy regime.

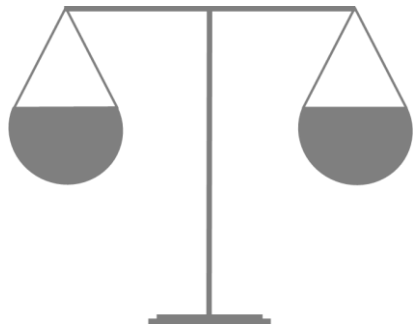
Source: <https://www.fraserinstitute.org/sites/default/files/annual-survey-of-mining-companies-2018.pdf>



# BALANCING STAKEHOLDER REQUIREMENTS

## MINING IS A LONG TERM INVESTMENT

- Significant time between discovery, development and generating returns
- Significant risk and cost to bring a mining project to production



## REQUIREMENTS FOR A THRIVING MINING INDUSTRY, HOST COMMUNITIES AND REGIONS

- Stable, predictable and consistent fiscal and regulatory regime to underpin long investment timeframes
- Good governance
- Trust between business, government and communities
- Stakeholder partnership is essential – there must be a fair and equitable sharing of benefits with project developers

## HARMONY AN ESTABLISHED PARTNER IN PNG

- Harmony has been active in PNG for close to 16 years
- We have a significant portfolio of assets in PNG covering the whole mining value chain (Hidden Valley mine, the Wafi-Golpu copper-gold project (50%) and other exploration tenements)
- Our South African and PNG track record and experience will enable us to deliver our growth objectives
- We look forward to continuing to work in partnership with all stakeholders for mutual benefit



# QUESTIONS