

# Las Bambas – Delivering Social Profitability

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This presentation should be read in conjunction with MMG Limited's interim results announcement for the six months ended 30 June 2021 issued to the Hong Kong Stock Exchange on 18 August 2021.

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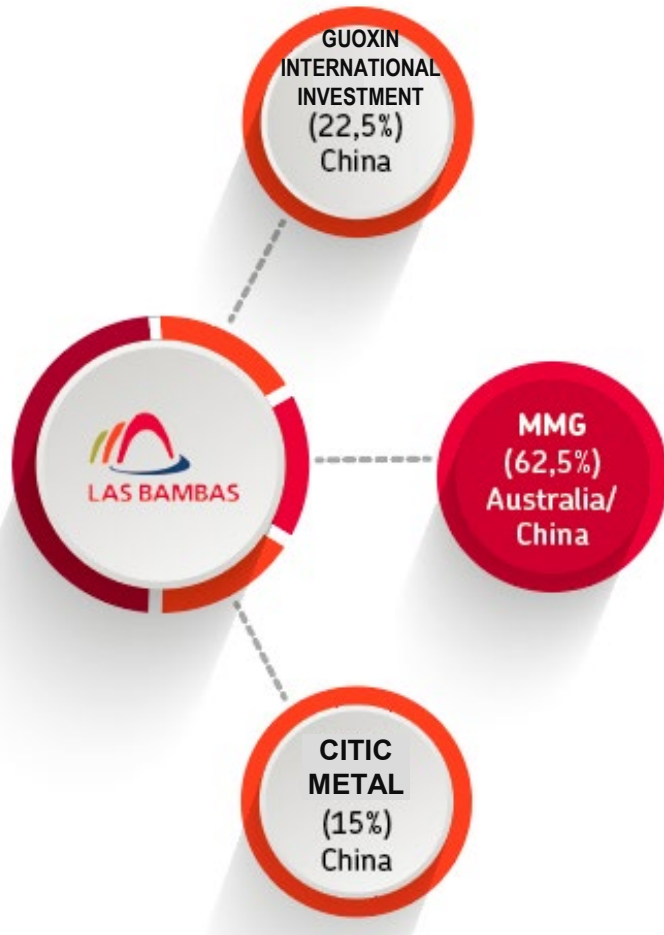


1. About MMG and Las Bambas.
2. Delivering Social Profitability.
3. The future of Las Bambas.

# About MMG and Las Bambas

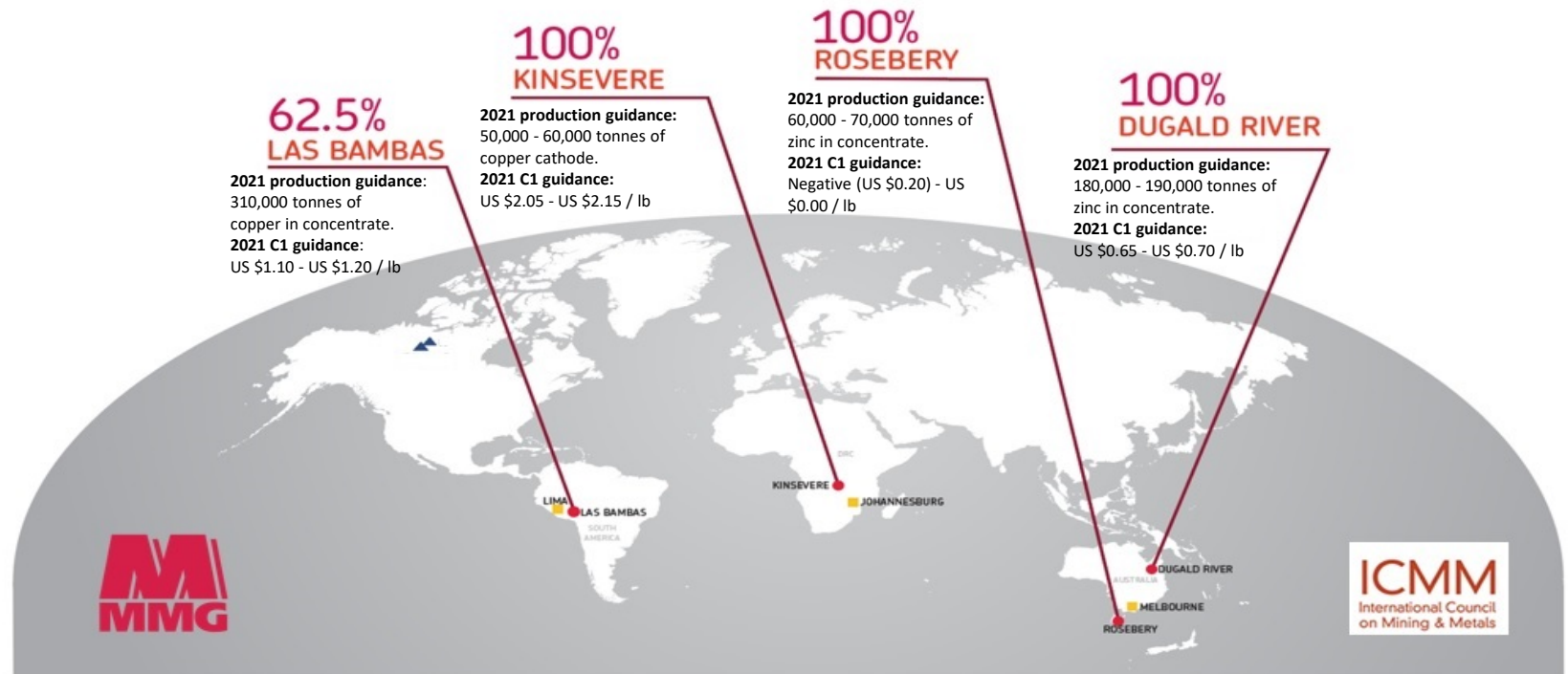


# About MMG



MMG led the joint venture that acquired Las Bambas on 31 July 2014.

- Global base metal miner: we focus on copper and zinc.
- Mining operations in Australia, Africa and the Americas.
- Corporate Offices in Melbourne, Australia and Beijing, PRC.
- Listed on the Hong Kong Stock Exchange.
- Majority shareholder: China Minmetals Corporation, a Fortune 500 company.
- Member, International Council on Mining and Metals.



# Las Bambas: a glance at the operation

## *Third largest copper mine in Peru*



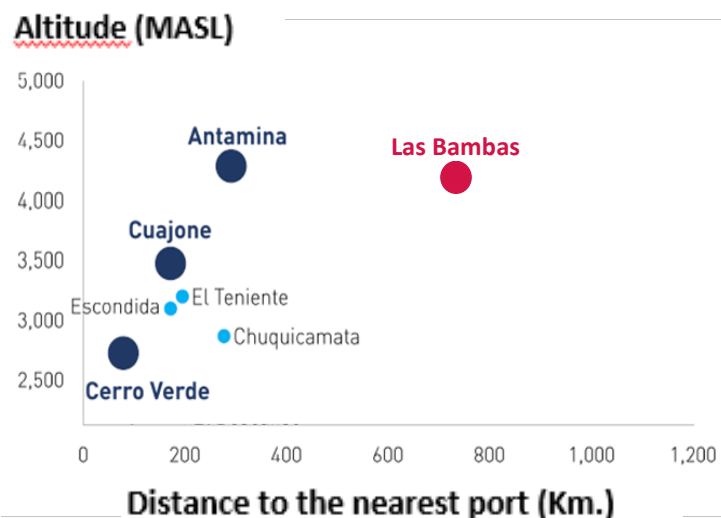
- Located in Cotabambas, Apurímac region, Peru.
- It has three main deposits: Ferrobamba, Chalcobamba and Sulfobamba.
- Produces clean copper concentrate with gold, silver and molybdenum by-products.
- It has ore reserves of 5.631 million tonnes of copper and mineral resources of 8.982 million tonnes of copper.
- The remaining life of the mine exceeds 18 years based on current reserves with significant geological potential to support mine life extension.
- Production: 2Mt Cu for first five years, average over LOM >300ktpa Cu.
- We pay 3% of sales in contractual royalties and 32% Income Tax.
- Las Bambas uses a bimodal (road and rail) transport system for the concentrate.



# Las Bambas location and social area of interest for operations and transport

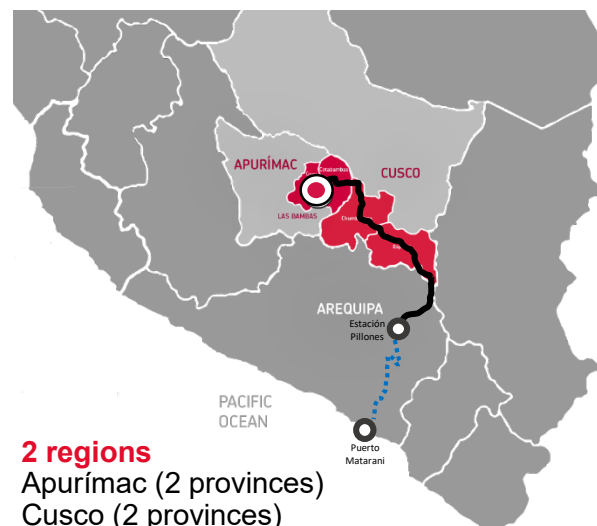


Las Bambas faces greater geographic adversity compared with the main Peruvian and Chilean mines



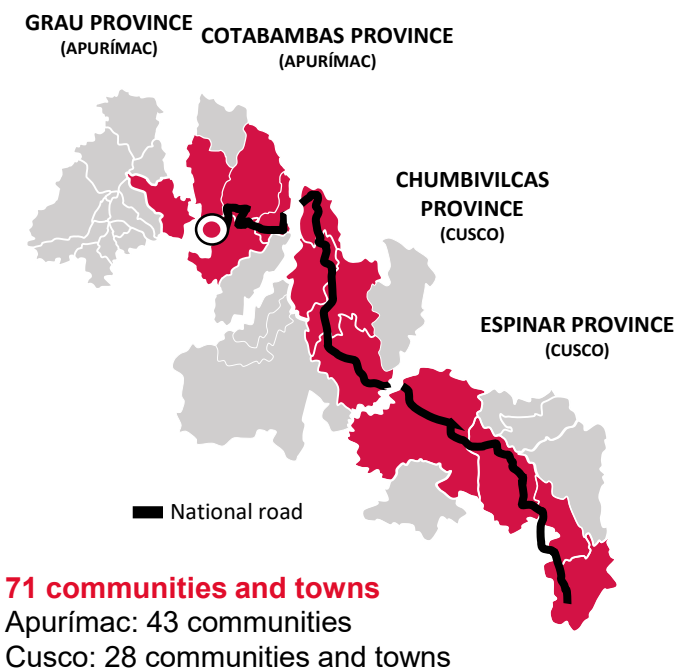
Source: "Indicador de Competitividad Minera", IIMP y Macroconsult, 2019

Adjacent communities and towns to the operations and transport route



**2 regions**  
 Apurímac (2 provinces)  
 Cusco (2 provinces)

**4 provinces / 14 districts**  
 Apurímac: Cotabambas, Grau  
 Cusco: Chumbivilcas, Espinar



- Bimodal transport system:
  - 438km by truck from Las Bambas to the Pillones transfer station (Arequipa);
  - 285km by rail from Pillones to the Port of Matarani.
- Las Bambas has invested more than **US \$235 million** to improve this means of transport.
- Concentrate Transportation: One of LB's Biggest Challenges

**Historical Road Blockades (2016 – 2021):**

- **Blockades: 340 days**
- **LB related: 258 days**
- **Not related to LB: 82 days\***

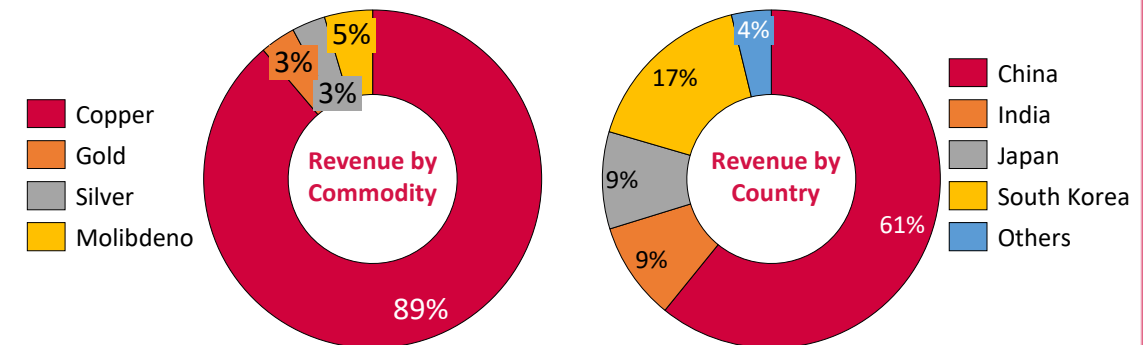
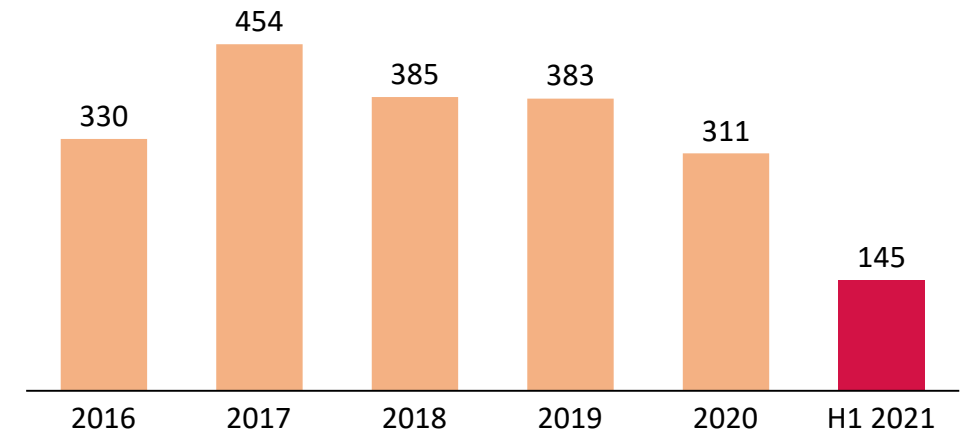
\* 43 days corresponds to the measurements by Covid-19

# Las Bambas First Half 2021 Performance



- H1 2021 production was 10% higher compared to the prior corresponding period due to higher mill throughput and the Covid-19 shutdown in 2020.
- C1 costs for the first half of 2021 were US\$1.08/lb compared to US\$1.15/lb in the first half of 2020. Significant cost saving programs are in place. Las Bambas remains one of the lowest cost mines of this scale in the world.
- Production down on pre-COVID levels primarily as a result of:
  - 2020 workforce constraints.
  - Declining grades at Ferrobamba.
  - Chalcobamba permit delays.

COPPER IN COPPER CONCENTRATE PRODUCTION (kt)





# **Delivering Social Profitability**

The background of the slide features several overlapping, wavy bands of color in various shades of red and pink. These bands create a sense of movement and depth, with some areas appearing more saturated than others. The overall effect is a modern, abstract design that complements the bold text.

# Las Bambas Financial Impacts



## Las Bambas' investments

<b>Initial investment</b> <b>S/ 33 billion</b>	<b>Additional investment</b> <b>S/ 4.9 billion</b> (2016 – 2020)
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## Las Bambas' relevance in Peruvian economy (2016 - 2020)\*

<b>Share in Peru's total GDP</b> <b>1%</b>	<b>Share in Apurímac region's GVA (**)</b> <b>72%</b>	<b>9% Mining GDP</b>
		<b>8% Mining exports</b>
		<b>15% Copper exports</b>

## Las Bambas' economic contributions and social investment

<b>Taxes paid</b> <b>S/ 4.9 billion</b> (2014 – 2021) <small>*Includes Royalties.</small>	<b>Royalties</b> <b>S/ 1.3 billion</b> (2016 – 2021) <small>July 2020</small>	<b>Investment in social development</b> <b>S/ 1.3 billion</b> (2010 – 2021)	<b>Social Fund ***</b> <b>S/ 179 million</b> (2004 – 2017)
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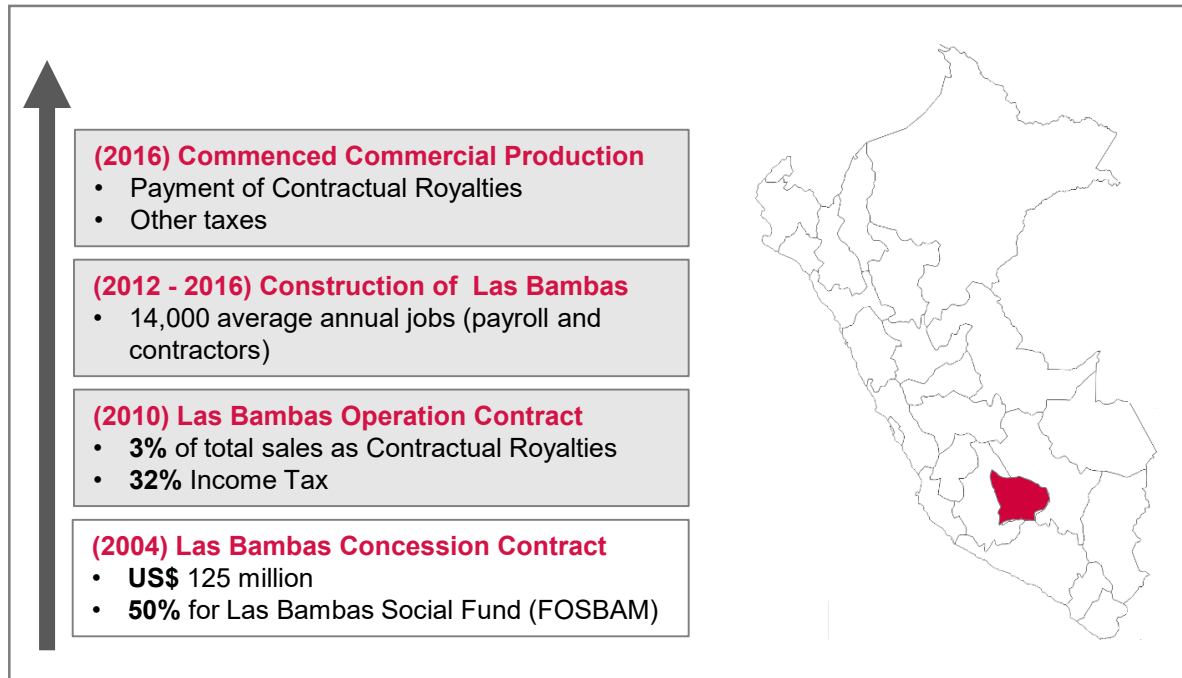
## Las Bambas' value chain

<b>Estimated annual creation of jobs*</b> <b>50,000</b> (2016-2020)	<b>Average annual labour force</b> <b>8,000 jobs</b> (payroll and contractors) (2016-2020)	<b>Labour force from Apurímac</b> <b>23%</b>	<b>Local procurement from Apurímac and Cusco</b> <b>S/ 1.1 billion</b> (2016 – 2020)
		<b>Labour force from Cusco</b> <b>21%</b>	

Note: (\*\*) GVA: Gross Value Added – Approximation of GDP.

\*Source: Macroconsult, Estudio de Impacto Económico y Social de Las Bambas (Study on Las Bambas Economic and Social Impact), 2010-2020

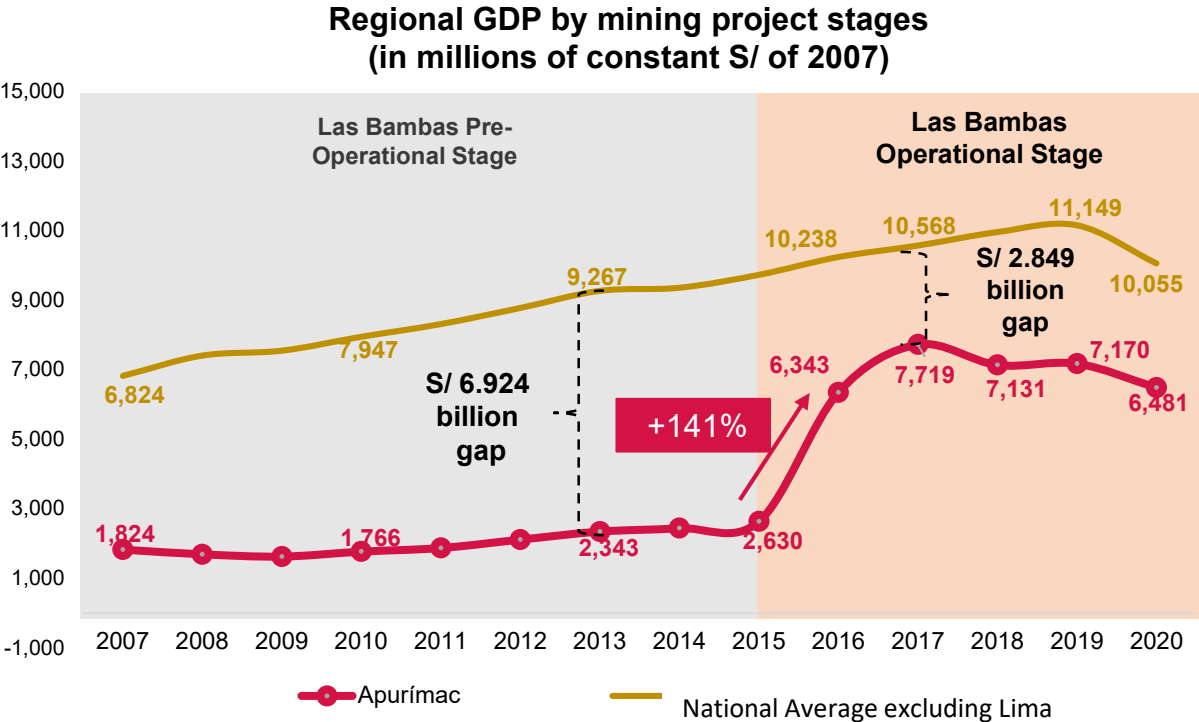
\*\*\* Fosbam: Pre-production social infrastructure fund



# Las Bambas Has Accelerated the Apurímac Region's Growth



## Apurímac's growth



Prepared by: Macroconsult.  
Source: National Institute of Statistics and Information (INEI)

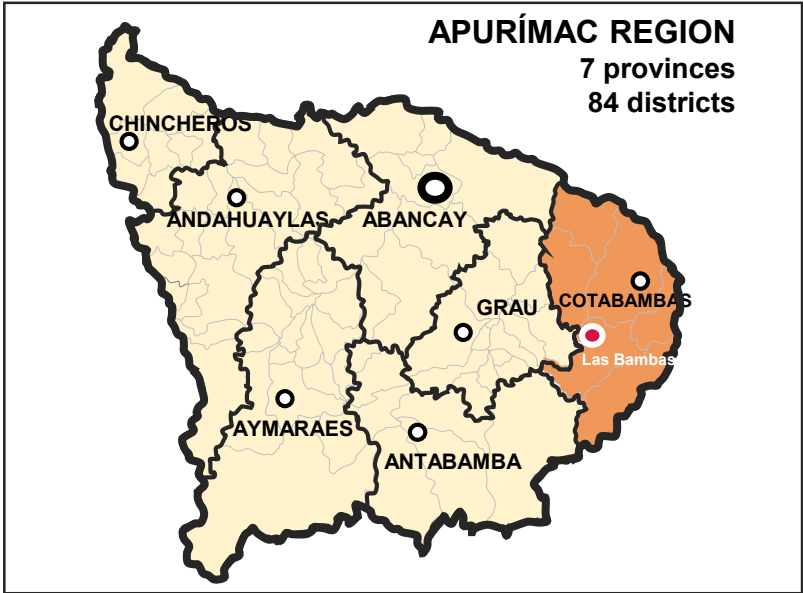
- **72% share in Apurímac region's GVA (\*\*).**
- **92% share in Apurímac's mining revenue (local and regional government).**

Before Las Bambas	Las Bambas in operation
<b>2007 – 2015</b> Average growth of Apurímac region's GVA(**) <b>Apurímac: 5.2%</b> <b>Peru: 5.7%</b>	<b>2016 – 2020</b> Average growth of Apurímac region's GVA(**) <b>Apurímac: 29.2%</b> <b>Peru: 0.4%</b>
<b>Apurímac (2007):</b> <b>23<sup>rd</sup> largest regional GVA(**) per capita</b> <b>S/ 4,192</b> (Peru: S/ 11,368)	<b>Apurímac (2020):</b> <b>8<sup>th</sup> largest regional GVA(**) per capita</b> <b>S/ 15,047</b> (Peru: S/ 14,885)
<b>Apurímac (2007):</b> <b>15<sup>th</sup> largest regional public budget per capita</b> <b>S/ 946</b> (Peru: S/ 899)	<b>Apurímac (2020):</b> <b>4<sup>th</sup> largest regional public budget per capita in 2020:</b> <b>S/ 5,389</b> (Peru: S/ 2,581)
Apurímac's population 2007: 435,116	Apurímac's population 2020: 11 430,736

*Note: (\*\*) GVA: Gross Value Added – Approximation of GDP.*  
*Source: Transfers to National, Regional and Local Government – Minister of Economy Report N° 25. Departmental population estimates and projections (INEI). National Accounts (INEI)*

# S/ 1.3 Billion in Royalties from Las Bambas

3% of sales per month



BENEFICIARIES	(millions of S/)
84 Municipalities	1.088 B
Regional Government	204 M
2 Public Universities	68 M
<b>TOTAL 2016 - 2021</b>	<b>1.360 B</b>

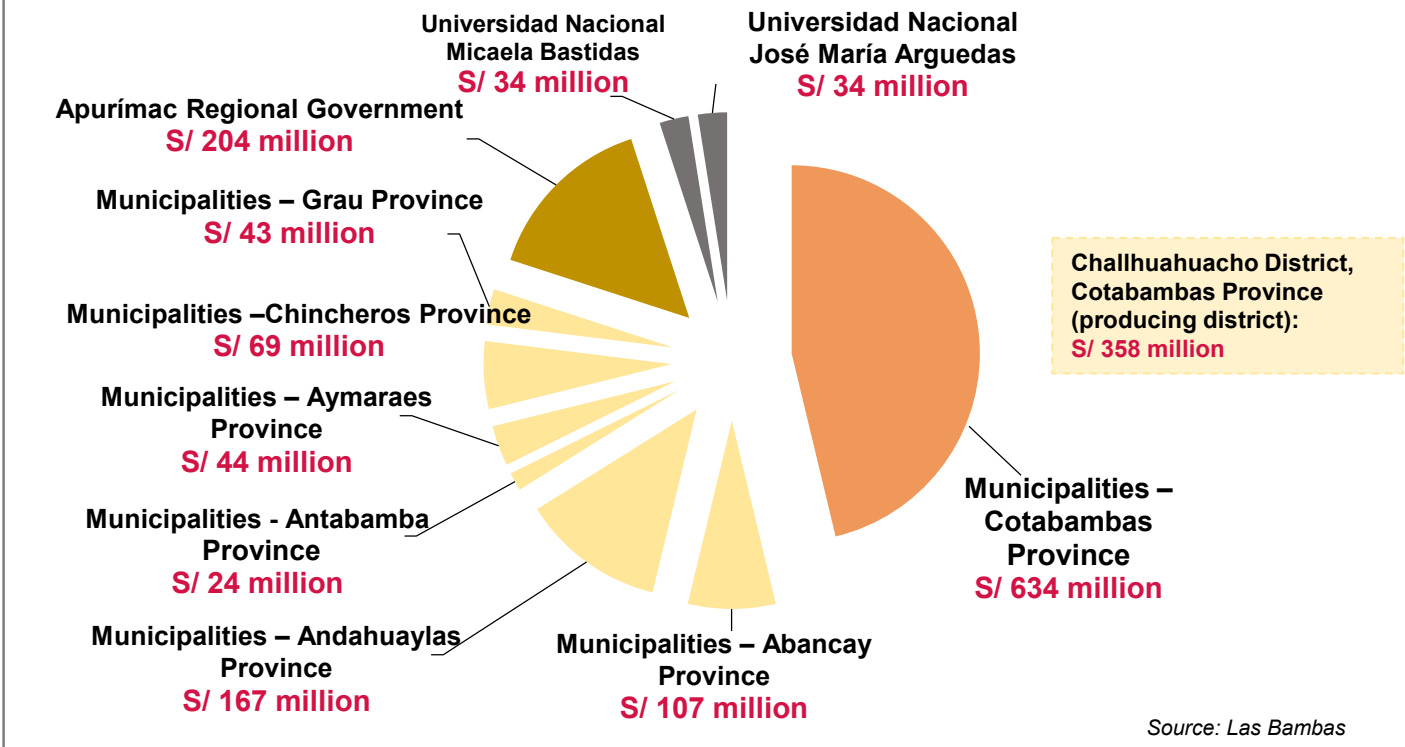
### Royalty Law (distribution):

- 20% Municipality of the district where the concession is located
- 20% District municipalities of the provinces where the concession is located
- 40% District municipalities of the region where the concession is located
- 15% Government of the region where the concession is located
- 5% Public universities of the region where the concession is located

## Distribution of royalties from Las Bambas

Jan 2016 – Jul 2021

**S/ 1.360 Billion**



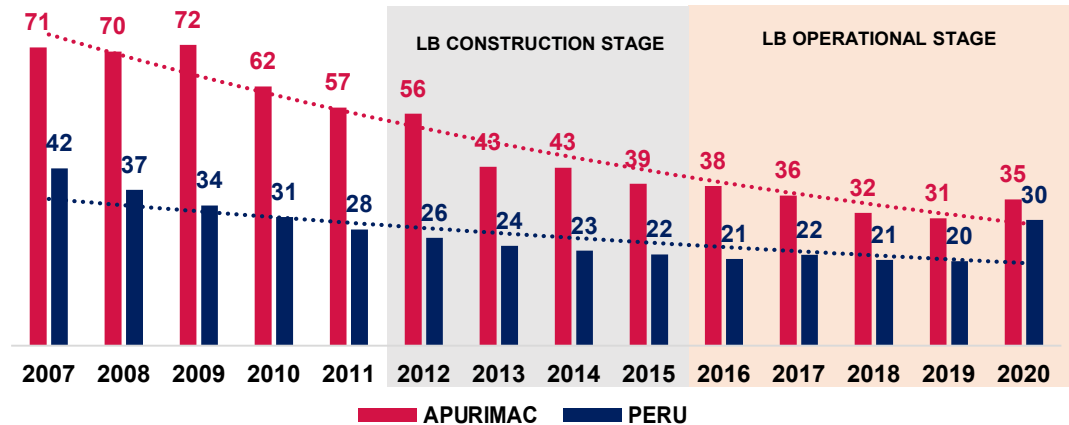
Source: Las Bambas



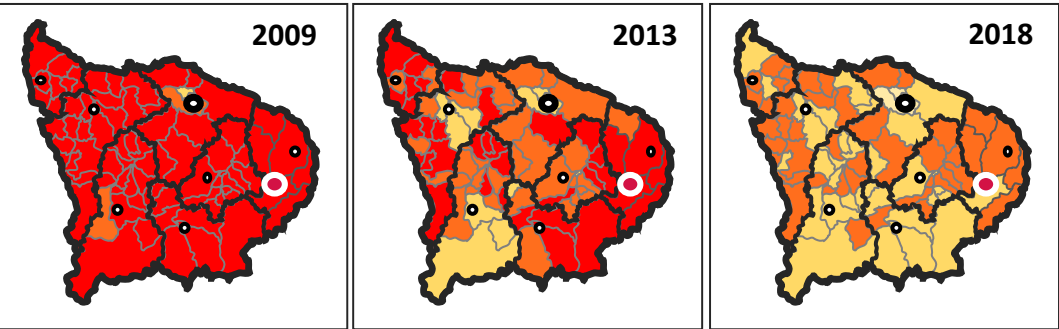
# Improvement in Social Indicators in Apurímac



Apurímac and Peru: Monetary Poverty 2007 - 2020 (%)



Monetary Poverty Map (84 districts in Apurímac)



Source: INEI % 60 and over 40 – 59.9 20 – 39.9 10 – 19.9

- Regional economic improvements in Apurímac translate directly to closing gaps on critical social indicators.
- By 2009, Apurímac was experiencing a social stagnation. From 2010 on, Apurímac reduced poverty at a much faster pace than the national average.
- Other social KPIs computed for a sample of districts around Las Bambas also show a greater improvement when compared with neighbors.

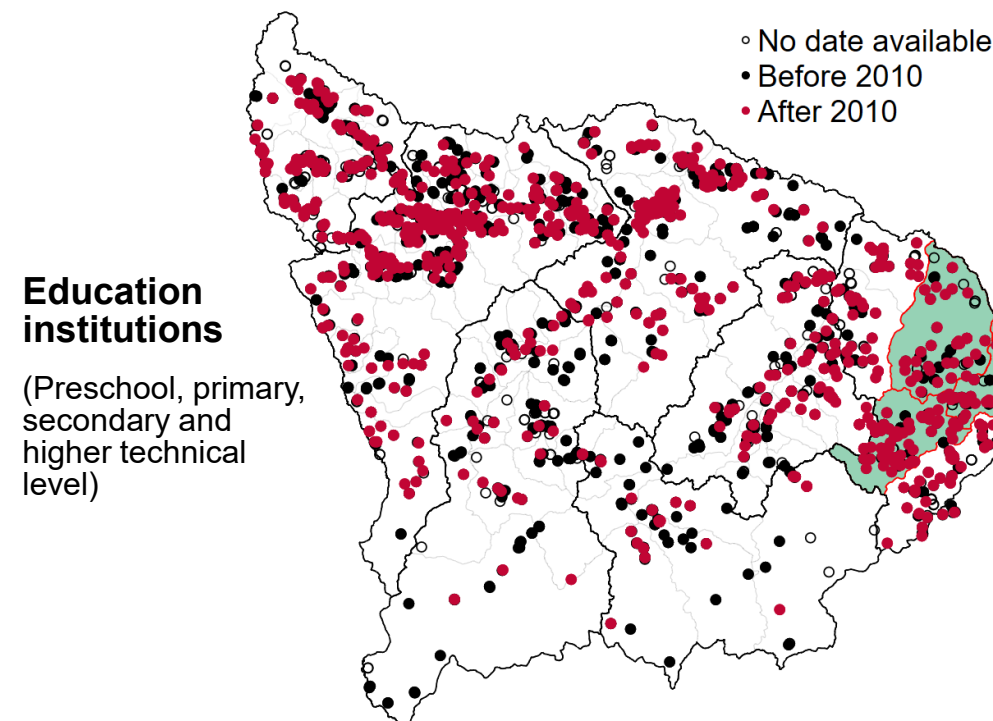
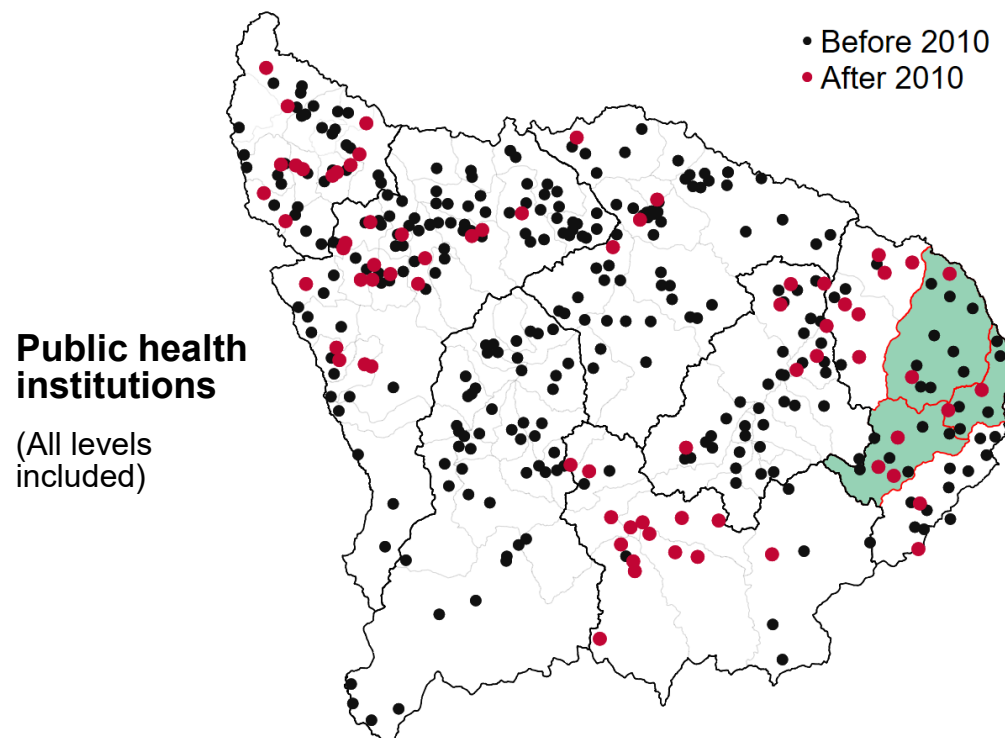
Improvement in Social Indicators in Districts in the Surroundings of the Las Bambas Operation

Reference Indicator	Indicator (base year) (A)	Indicator (final year) (B)	Difference (A vs B)
Per capita income	S/ 128 (2007)	S/ 440 (2019)	+ S/ 312
Non-monetary poverty rate	69% (2007)	39% (2017)	- 30%
Monetary poverty rate	87% (2007)	42% (2018)	- 45%
Human Development Index	0.175 (2007)	0.382 (2019)	+ 0.207
Chronic malnutrition in children <5 years	52% (2010)	26% (2019)	- 26%
Access to complete basic services (water, sanitation and electricity)	3% (2007)	27% (2017)	+ 24%

Source: Study on Las Bambas Social and Economic Impact, Macroconsult, 2021. Study area (Challhuahuacho, Tambobamba and Mara)

# Significant social infrastructure investment in Apurimac since 2010

Since 2010, 78 health centres and approximately 950 education institutions at all levels (\*) were established, expanding the offer of these services, of particular importance in the area of influence of Las Bambas.



(\*) The institution is identified by the modular code. There could be more than one education institution in a same building.  
Source: School Census and Geolocation system of the Ministry of Health (Geo MINSA)

# Transformation in the Living Conditions of Challhuahuacho District



- Challhuahuacho recorded just 1,900 private houses in 2007 and 2/3 of them were in precarious condition (huts or cabins).
- Currently, it is a high density district with almost 5,000 homes, most of them (86%) independent houses and a high presence of economic activity.

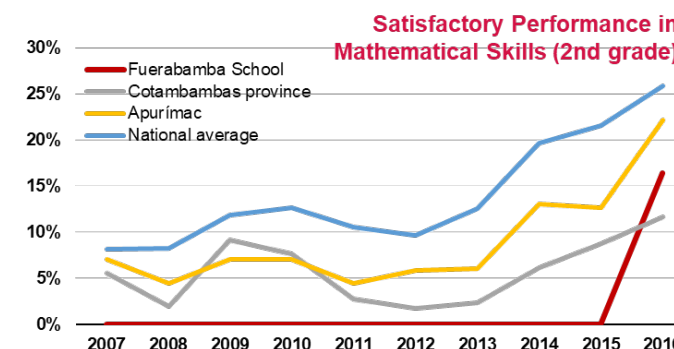
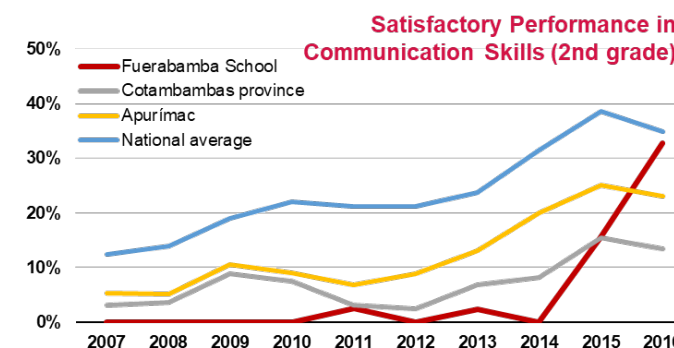
Panoramic view of Challhuahuacho district (2007)



Panoramic view of Challhuahuacho district (2020)

## Obvious Impacts on Children of the Fuerabamba Resettled Community

The Fuerabamba community, resettled in the city of Nueva Fuerabamba, has all the basic services and public services that lead to a substantial decrease in the community's health and education gaps, mainly in early childhood.



Note: Fuerabamba School refers to School N° 50651 – Fuerabamba.  
Source: Evaluación Censal de Estudiantes, MINEDU. Estimates done by Macroconsult.



# Las Bambas' an ally to mitigate COVID-19 impacts in Apurimac and Cusco



## US\$ 7.7 million invested in corporate social responsibility actions in the fight against COVID

Specific COVID-19 actions to support the continuity of the vaccination campaign by the government, supply of medical oxygen in Apurimac, enhance Digital Education, strength the response capacity of local facilities with the delivery of medical equipment, support to local communities, containment of the virus and prevention of its spread, and economic recovery of local businesses.

**+31,721**

COVID Vaccine doses applied in vaccination centres and in local communities supporting the activities and goals of the Apurimac Regional Health Directorate

**14**

IMMUNISATION CENTRES IMPLEMENTED



**47**

IMMUNISATION BRIGADES MOBILISED TO COMMUNITIES



**57**

IMMUNISATION TEAMS AT FIXED POINTS



**524**

HUMAN RESOURCES INVOLVED



**95** Communities, towns and cities  
**+2,000** disinfected km



**Rapid Tests**  
**500K** delivered to the Ministry of Health through Peru's National Society of Mining, Petroleum and Energy (SNMPE)  
**19,550** Apurimac Regional Government



**852** returning residents mobilised by air and land to Cusco and Apurimac



**2** Isolation and Care Tents



**9K** families received cleaning kits



**2** Medicinal Oxygen Plant  
**5** Mechanical Respirators  
**30** Health Facilities



**20K** face masks were purchased and donated Inter-institutional Agreement with Haquira District Municipality



**14,523** Full essentials baskets for families in local communities



**30 weekly hours** Broadcasting of educational content of "Aprendo en Casa" (I Learn at Home) Government Program



**660** local businesses trained on new protocols



Biosafety Materials  
**19** COVID-19 District Committees  
**23** Benefitted Facilities



# The Future of Las Bambas

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# Las Bambas – remainder of 2021 focus



- Work with the new Government of Peru and the Huancuire community to advance development of Chalcobamba.
- Ongoing cost and efficiency programs.
- Continue to manage COVID-19 impacts in Peru, including expanding COVID-19 safe accommodation, to maintain a healthy and safe workplace and ensure continued high levels of employee availability.

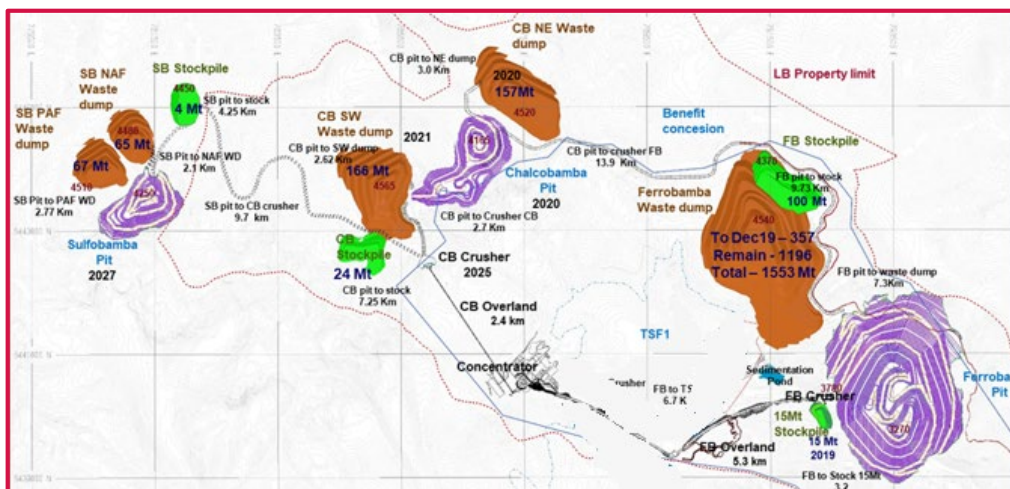
## 2021 FULL-YEAR GUIDANCE

- Full year production for 2021: around 310,000 tonnes of copper in copper concentrate
- Copper C1 cost of US\$1.10 – US\$1.20/lb.



Average copper production around 400kt per annum is expected over the medium term, subject to the timing of Chalcobamba approvals.

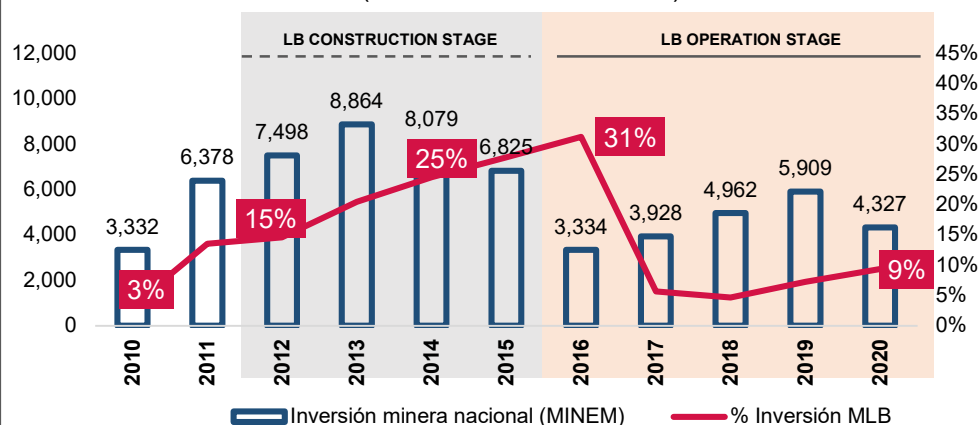
# Maintaining production levels – additional medium term investment of US\$ 2 Billion



## Key aspects

- The current reserves allow for mine life ending in ~2040. However, this will require significant ongoing development of new pits and infrastructure.
- Currently, Las Bambas operates the Ferrobamba pit (stages 2, 3, 4).
- The current plan for MLB includes the development of Ferrobamba (stages 5, 6, 7 & 8), the Chalcobamba and Sulfobamba deposits.
- Chalcobamba is a key driver of near future taxes as it will contribute S/. 3.7 Billion (34%) over the next 5 years.

**MLB investment relative to national mining investment**  
(in millions of current US \$)



## Improvement projects include:

- Construction of **third ball mill** (underway);
- Construction of **a new maintenance facility**;
- Construction of **water management canals and systems** (underway);
- Construction of a new **main camp**;
- Construction of new **crusher and conveyor** at Chalcobamba, among others.

# Final Thoughts

## Working Together

- **Las Bambas's economic and social impact on Apurimac, and Cotabambas in particular, has been transformational.**
- **The improvement across critical social development indicators is real and accrues to the region and beyond.**
- **This outstanding trend of 'social profitability' can continue and accelerate if:**
  - Together communities, regional and national governments cooperate to expedite development and reduce administrative delays for key social and development projects.
  - Regional security, stability and 'rule of law' can be maintained – supported by a stronger institutional presence – particularly along the Southern logistics corridor.
  - The significant economic resources available to the region can be channeled to social development outcomes – with a major role for government to partner in delivering social profitability.



**Las Bambas's aim is to continue its significant contribution to Apurimac, and Peru in general, BUT we need government and community support to do so.**



Thanks

