



SUSTAINABILITY REPORT 2022

To benefit more people
through the development of Chifeng Gold



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Welcome

Welcome to this review of the operating activities of Chifeng Jilong Gold Mining Co., Ltd. (“Chifeng Gold”) in the People’s Republic of China (the “PRC” or “China”), Republic of Ghana (“Ghana”) and the Lao People’s Democratic Republic (“Laos”).

Its aim is to introduce our company and our management approach to sustainability, including performance data on a number of key metrics. Our intention is to build on this and expand our qualitative and quantitative disclosures in the years ahead.

We welcome feedback on the approach we are taking. Please direct any feedback to our investor relationship manager at IR@cfgold.com.



www.cfgold.com

I am delighted to introduce this review of Chifeng Gold, one of the leading gold producers in China.

In the past four to five years, our business has changed dramatically. We completed the acquisitions of the Sepon Mine in the Lao People’s Democratic Republic in 2018, and the Wassa Mine in Ghana in 2022.

We recognise the challenges that arise when integrating companies with different backgrounds, which operate in different regions of the world, and have different cultures. Set against this complexity, however, there are some fundamental principles that remain vital.

We understand that our future business success is interconnected with the well-being of the environment and communities where we operate. We have therefore set a vision to be a responsible and sustainable business that creates value for all our stakeholders.

We are particularly sad to report that three of our employees were fatally injured in 2022. We are deeply saddened by these and express our regret and condolences to their family, friends, and colleagues. Tragic incidents of this nature reinforce our determination to ensure that we do not see such accidents of this kind in the future and that everyone goes home safely every day.

To this end, we will invest in our employees’ safety and well-being, protect the natural environment, and continue to engage with local communities.

We are continuing our sustainability journey. We are developing our policies and procedures for the integrated company. But we also understand the need for action now to address broader challenges we all face, including climate change.

We are investing in technologies that will enhance our energy efficiency and have projects underway that will increase our use of renewable energy. We will work to extend and deepen our disclosures on greenhouse gas and other important emissions and discharges in the years ahead.

As we move forward, we recognise that we have work to do to embed sustainability into our business processes. Thank you for your support and interest in our sustainability journey.

Lydia Yang

Lydia Yi-fang Yang
Chief Executive Officer



Chifeng Gold Key Data 2022



RMB6.27bn

Revenues of RMB6.27bn



436koz

Gold production of 436koz



2.73

Total recordable injury frequency rate of 2.73



99%

of the workforce local employees



RMB 7.3m

spent on community investment



16.5m m³

Tailings produced



50

50 hectares of land rehabilitated

Who is Chifeng Gold?

We are a fast-growing, international gold producer mainly engaged in the mining, processing and sale of gold, globally. We are committed 'to benefit more people through the development of Chifeng Gold'.

> Business highlight



84.6%

Our total percentage revenue derived by sales of gold in 2022.





Our operations

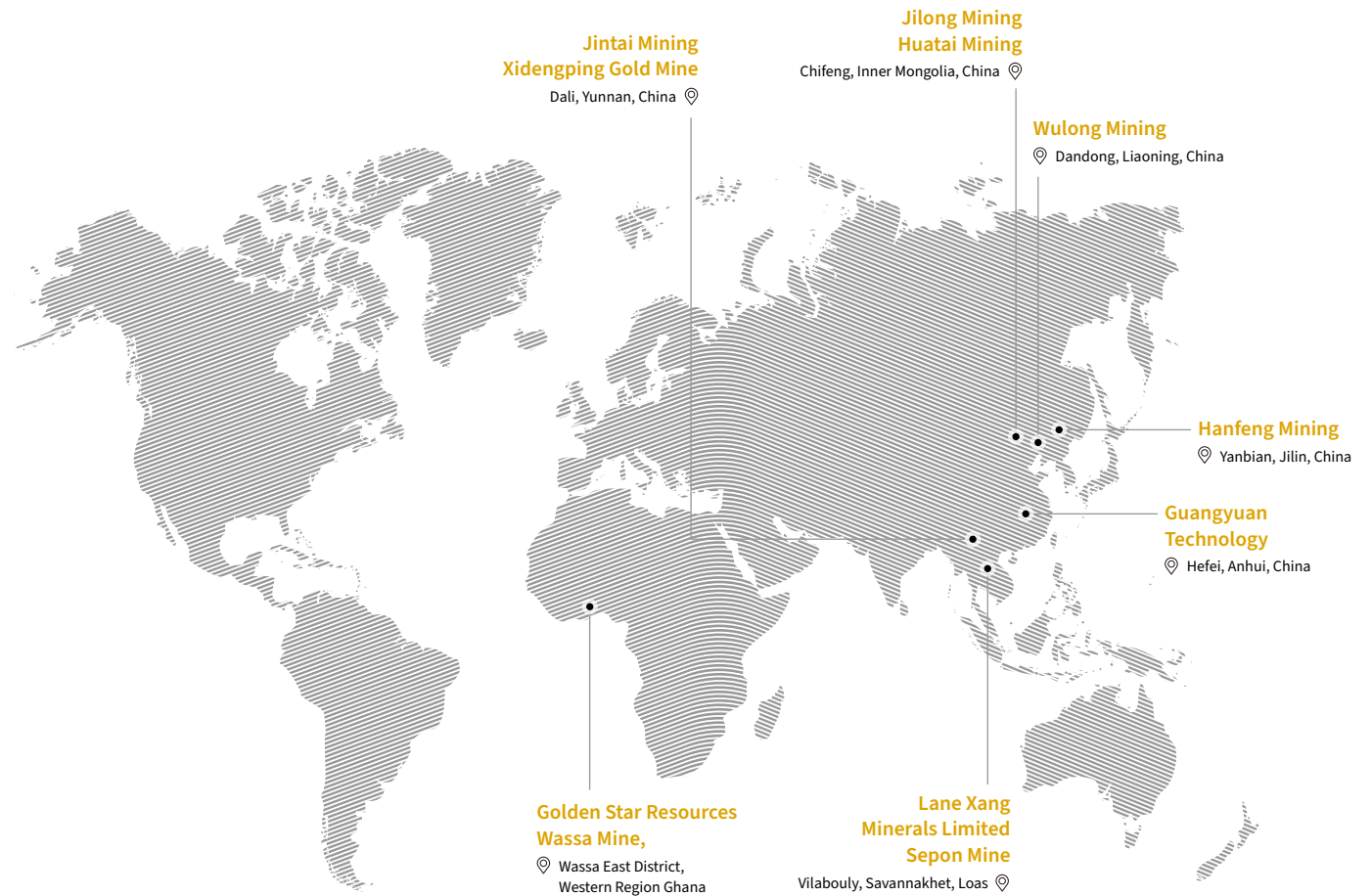
As of December 31, 2022, we conducted our gold production business through:

- Three subsidiaries in the PRC, namely Liaoning Wulong Gold Mining Co.,Ltd. ("Wulong"), Chifeng Jilong Mining Co., Ltd ("Jilong"), and Chifeng Huatai Mining Co., Ltd ("Huatai").
- One subsidiary in Laos, namely Lane Xang Minerals Limited ("LXML").
- One subsidiary in Ghana, namely Golden Star (Wassa) Limited ("Wassa").

We also engage in exploration, mining, processing and sales of other metals, which mainly includes non-ferrous metals produced by our subsidiary, Jilin Hanfeng Mining Technology Co., Ltd. ("Hanfeng"), in Jilin Province, China, and copper cathodes produced by LXML. Aside from our principal business above, we engage in recycling waste electrical and electronic products through our subsidiary in Anhui Province, Anhui Guangyuan Technology Development Co., Ltd. ("Guangyuan").

Our goals and values

Our goal is 'To benefit more people through the development of Chifeng Gold'. We are committed to environment and workplace safety, caring for our people and for the communities where we operate. We are working to integrate high Environmental, Social and Governance (ESG) standards into how we work and are committed to implementing the best practices of our industry.



Global presence

5.25 million tonnes



Available gold resources domestic gold mining enterprises

1,127 square kilometres



Total area of exclusive rights for exploration and mining.

Wassa Gold Mine



A mid-tier gold producer in Ghana with the largest concession area



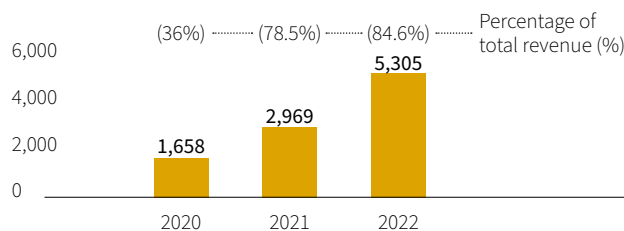
Since we started our international ventures in 2018, we began to enhance our management team and we have been working to transform the business. We have expanded our operational capabilities, improved our decision-making and response mechanisms regarding overseas acquisitions and have acted swiftly when facing the complicated operational challenges that arise from international acquisitions. We set out to create a corporate culture of 'Mutual Prosperity and Development' and implemented a long-term internal incentive mechanism to motivate the management team and employees.

A strategic focus on gold production

We have realigned our business strategy to focus on gold production and, in doing so, have transformed ourselves from a small mining company covering various sectors into a more mature, specialised mining company primarily focused on gold. Our revenue derived from sales of gold has grown significantly, reaching 84.6% of our total revenue in 2022.

Our gold resources in the PRC (inclusive of reserves) at the end of 2022 were approximately 1.4 million oz in contained metals; our overseas gold resources were approximately 12.2 million oz in contained metals.¹

Gold Mining Revenue(RMB million)



At a glance

Chifeng Jilong Gold Mining Co. Ltd.
("Chifeng Gold")

International gold producer mainly engaged in the mining, processing and sale of gold

Headquartered in Beijing, China

We are a public company, listed on the Shanghai Stock Exchange

Our main markets are domestic, in China, but we are fast-growing in international markets

We have six principal operating locations in our operating portfolio; four in China, one in Laos and one in Ghana

¹We adopt the standards of mineral resources statement of China, i.e. GB/T 17766-2020, for evaluation of our resources located in the PRC, and NI 43-101 for our reserves and resources in Laos and Ghana.





7,000

We employed approximately 7,000 people in 2022



436k oz

We produced approximately 436k oz of gold in 2022



RMB6.27bn

Revenues of RMB6.27bn in 2022

“

We are proud of our record of growth. Our strategy is to maximise the potential of our existing mines by expanding production, exploration, and enhancing our reserves.”



ZHIYONG (KEVIN) CHEN

CHAIRMAN GOLDEN STAR WASSA LIMITED



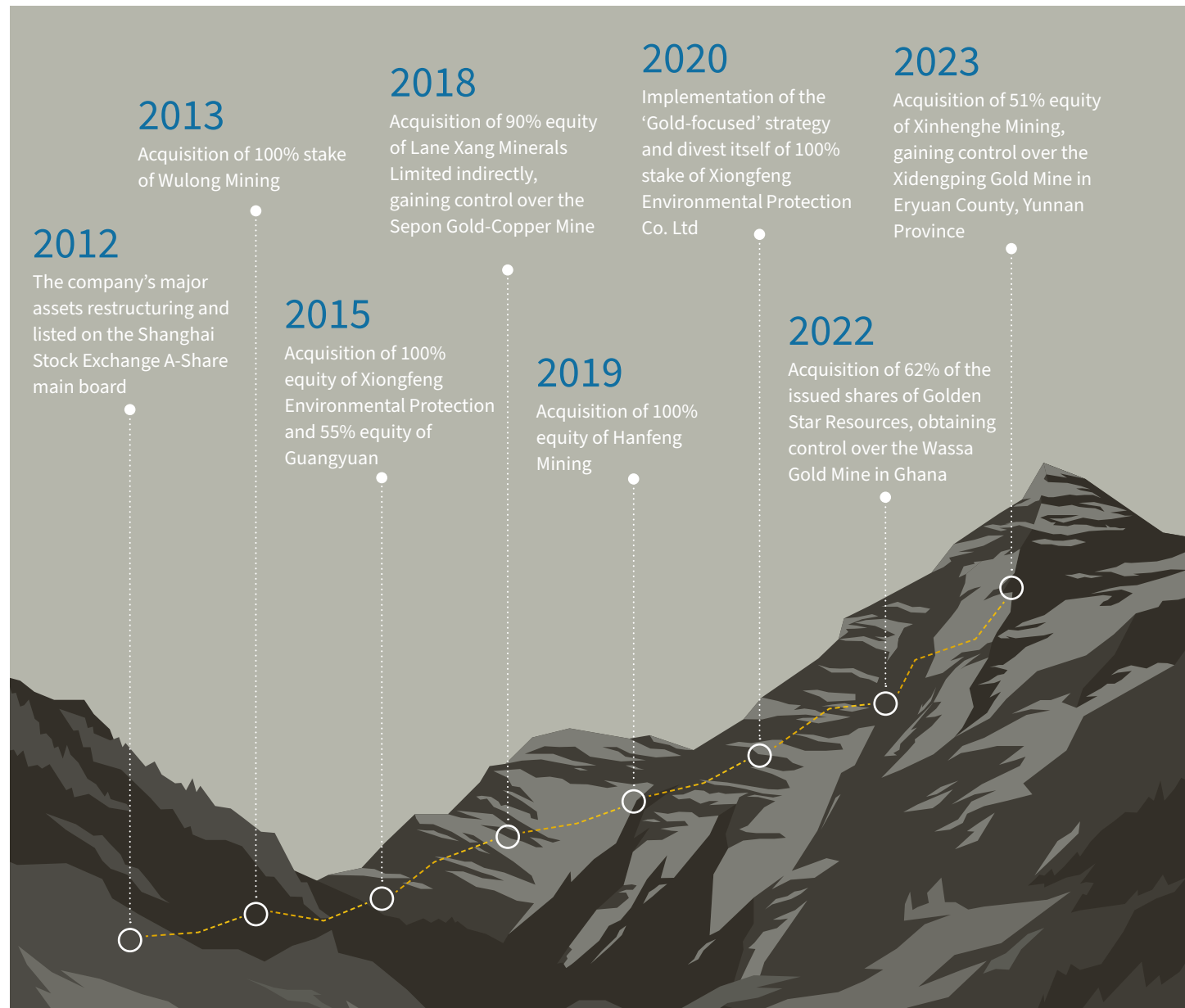
Our growth

We have expanded our overseas operation mainly by acquisition. In November 2018, we acquired a 90% equity interest in LXML in Lao People's Democratic Republic. The total gold resources of LXML (as of 31 December 2022), were approximately 1.7 million oz and its total gold reserves were approximately 660 koz in contained metals. In 2022, LXML's total gold production volume was 199.51 koz. We are now developing an underground mine as well as improving the gold recovery rate through technological improvement.

In January 2022, we acquired a 62% equity interest in Golden Star Resources, which in turn holds a 90% equity interest in Wassa. The total gold resources of Wassa (as of 31 December 2022) were approximately 96.6 million tons of ore and a metal content of 51.6 tons. Its total gold reserves were approximately 920 koz in contained metals. From the completion of the acquisition to 31 December, 2022, gold production from Wassa amounted to 162 koz.

In January 2023, we completed the acquisition of 51% stakes in Xinhenghe Mining Co., Ltd ("Xinhenghe"), which in turn directly holds a 90% equity interest in Eryuan Jintai Mining Development Co.,Ltd ("Jintai"). Jintai's core asset is the Xidengping Gold Mine, under construction in Yunan Province, China.

In 2022, we ranked fifth among gold producers in China in terms of gold resources having gold resources of 5.25 million tons. We ranked fifth among listed gold producers in China in terms of gold production, with production of 436 koz in 2022. This growth was mainly attributable to our expansion strategy, enhancement of our resources and reserves through exploration and technological improvements, and our benefits sharing program. These actions empowered us to benefit from organic growth and strategic acquisitions.



Key impacts, risks and opportunities

Our activities – including exploration, mine development, mining operations, transportation, and mine closure and rehabilitation – all result in physical impacts to the natural environment, as well as impacts on local communities. These impacts can arise throughout the mining value chain, across the life cycle of any mine, and they encompass, economic, environmental, and social aspects.

> Impact highlight



We are working together with partners, in line with the UN Sustainable Development Goals.



Impacts and risk

The risks in finding, extracting and processing gold are significant, involving complex, environmental, technical, and financial planning. In operations, negative impacts can arise which have long-lasting implications for peoples' health and wellbeing, as well as for ecosystems and communities.

We recognise the risk posed by climate change, which can lead to a range of physical, regulatory and other impacts on the business. We are developing our systems and capability to fully assess the implications of climate change, including the financial implications and costs.



“

We want to make sure that our impacts are positive, and deliver benefits for us and all our stakeholders.”

SAMAN ANEKA

DIRECTOR & MANAGER STAKEHOLDER RELATIONS / SEPON



Opportunities

Our challenge, and our opportunity, is to work in partnership with institutions at a local and national level to increase well-being, tackle poverty, and drive improvements in people's lives, in line with the aspirations of the UN Sustainable Development Goals.

Mining, and the financial and economic benefits that derive from mining, are important for local and national governments, including in the countries where we operate. Our activities not only provide salaries and benefits through direct and indirect employment, but also generate significant revenues from taxes, royalties, and other payments to governments. These financial flows contribute to macro-economic resources and can be an important driver of beneficial socio-economic outcomes.

Our mining projects are typically large scale and have long timeframes. This means we need good relationships with a wide range of stakeholders, including governments, regulators, affected communities and individuals, and business partners in the supply chain.

As we invest in our business, we are exploring projects that will minimise our greenhouse gas emissions by developing access to renewable sources of energy. We are introducing best standards on a step-by-step basis to our operations. We have considerable experience in mine rehabilitation and bringing land back into productive use for the benefit of local communities. We are working with local communities and other stakeholders to deliver durable mutual benefit.

Looking to the future

We are looking to increase production and develop new opportunities, while simultaneously embedding our culture and building our governance systems and processes.

> Future highlight



Expansion projects are underway at Jilong and LXML which will increase our mining capacity.





Key aspects of our future development



Technology and innovation

Our strategy is to maximise the potential of our existing mines by expanding production, exploration, and reserve enhancement.

We are accelerating the construction of an underground mining project at LXML, which will provide annual underground mining capacity of 750,000 tons. In April 2021, several new near mine gold prospects were identified at LXML Sepon, representing substantial exploration and resource development potential.

We have been investing in improving efficiency and expanding the production of underground mines at Wassa.

The mining of two open pits under the mining tenements of Wassa and Benso started in the second quarter of 2022. We are accelerating a production expansion project at Wassa, focusing on developing deep orebodies and other orebodies to the largest extent permitted by the mining license. We are also continuing exploration activities of peripheral areas as well as working to secure longer mine life.

In terms of our domestic gold assets, we are working on several underground technological improvement projects at Wulong. We have initiated an expansion project at Jilong to increase its annual mining and processing capacity. Wulong also has substantial exploration potential in its underground mine and peripheral areas, which we are continuing to explore.

Apart from our core gold business, our exploration and development of rare earth resources in Laos offer new growth opportunities. Scarce ionic medium and heavy rare earth resources were discovered within the LXML exploration licence area in early 2021. In October 2022, the company and Xiamen Tungsten Corporation Ltd. ('Xiamen Tungsten') established a joint venture, a 51% equity interest of which is held by Chifeng Gold, focusing on the development of rare earth resources in Laos. Collaboration with Xiamen Tungsten will improve our competitiveness in rare earth resources and generate new opportunities.



750,000 tons

Estimated additional capacity which will be delivered by the underground mining project at LXML.

Governance

We are putting in place the systems of control and the policies, procedures and practices we need to ensure we operate in line with our sustainability goals.



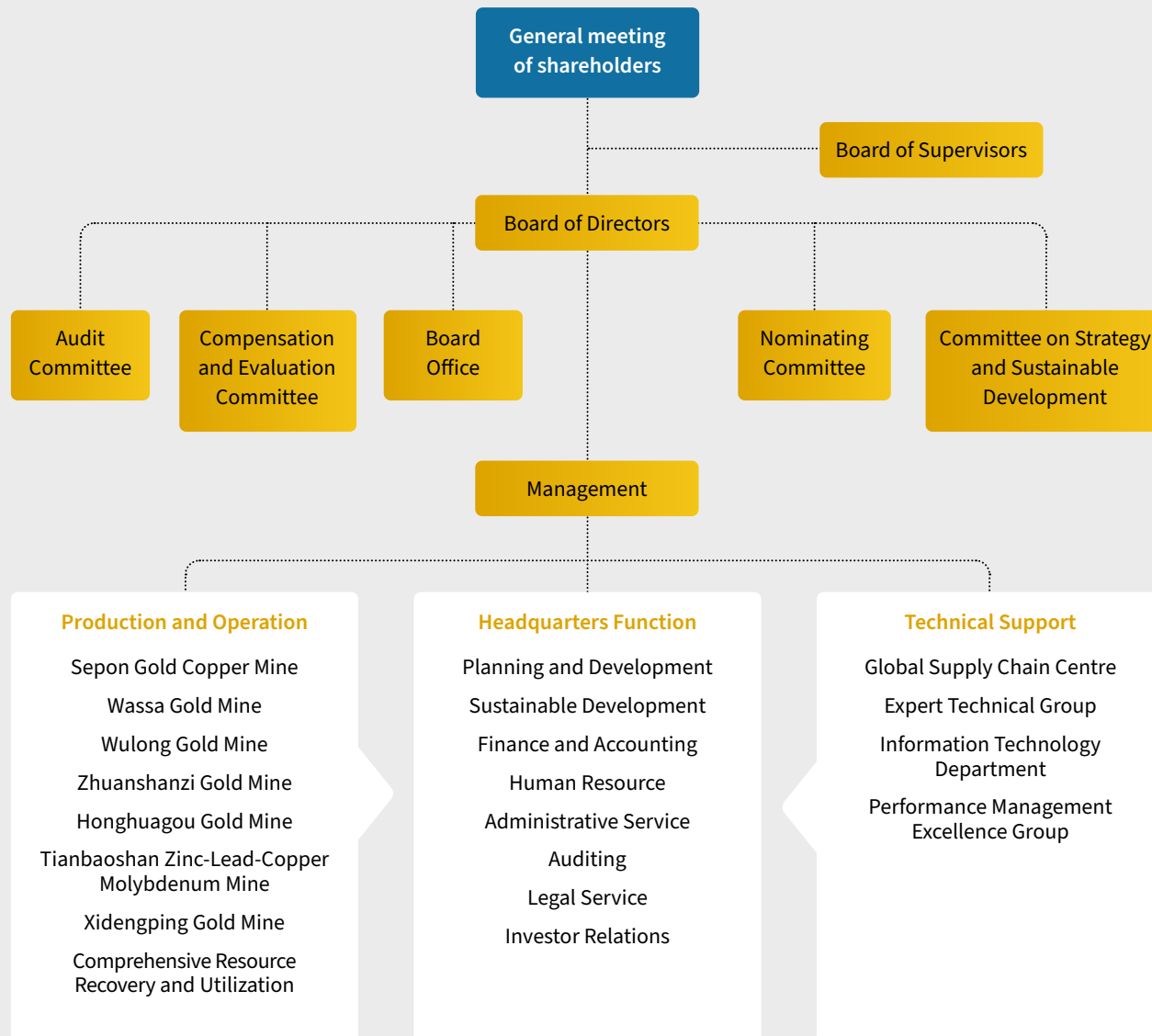
> Governance highlight



September 2022 saw the establishment of the Strategy and Sustainable Development Committee under the Board of Directors



Corporate governance



Governance architecture

The Shareholders meeting represents the highest decision-making body in the company. Shareholder meetings are held in accordance with the requirements of the Articles of Association and the listing rules requirement. We are committed to ensuring that all shareholders, including minority shareholders, have equal rights and can fully exercise their voting rights.

The Board of Directors is the operating and decision-making body within the organisation. The Board is responsible for decisions on the company's development strategy, compliance, business management and risk controls. The Board delegates management decisions to the Chief Executive Officer and the executive management team, who have day-to-day responsibility for decision-making relating to the company's purpose, values and strategy.

The executive management team is responsible for decisions relating to business operations, including sustainability matters. A Board-level committee on Strategy and Sustainable Development supports the Board in setting the medium and long-term direction of the company, researching sustainability policies, supervising the implementation of the company's ESG goals, and making recommendations related to other issues that have an impact on the company's development.



Board composition and management team

Our management team is experienced and committed and has deep expertise in the gold industry and a proven track record in mine operations in China and globally. Most of our core management members have served in key positions in well-known domestic and overseas mining enterprises.

The management team includes individuals with industry and capital markets expertise, covering disciplines such as corporate management, mining, processing, geology, finance, and law. The team has extensive experience of overseas acquisitions and mergers. We have established effective decision making and execution procedures in the identification of acquisition targets, transaction execution and post-acquisition integration of operations. We also have experience of gold industry operations such as corporate governance, technology implementation, overseas mine operations, environmental protection, safety, and social responsibility.

Board appointments

In January 2022, we appointed three new independent directors. Two are academicians of the Chinese Academy of Engineering and the third is a senior professor, specializing in geology, mining, and processing. They have brought substantial professional expertise to the Board and provided support in improving the quality of our decision-making processes.

Strategy and Sustainability Committee

In September 2022, we established a Strategy and Sustainable Development Committee under the Board of Directors. The committee has been chaired by Chairman Wang Jianhua with support from our experienced Directors, including our Chief Executive Officer. The committee's purpose is to support and guide our medium- and long-term development strategies, decision-making on major investments and to supervise the preparation and implementation of our environmental, social and governance goals.

Standards and practices

We seek to apply international industry standards and the best international practices in our overseas mines. The same standards are adopted in our domestic mines on a step-by-step basis.

Conflicts of interest

The Board of Directors has over-riding responsibility for ensuring that conflicts of interest are prevented and mitigated.



Stakeholder engagement

We are building our engagement and relationships with key stakeholders. We engage with a wide range of stakeholders including investors, communities, officials, regulators, business partners, and unions at a local level.



> Stakeholder highlight





In 2022, we continued our engagement with local communities across our sites.



Our engagement with stakeholders

| Who are our key stakeholders? | | What are the issues that matter? | How do we engage? |
|--|--|---|---|
|  Government and regulators | National ministries and monitoring units. | Worker health. Tailings. Environment and Social performance. Plans for mine expansion. | Routine meetings and interaction. Recurring reporting. Scheduled site visits (quarterly, half-yearly, annual). Permitting visits. <i>Ad hoc</i> regulatory inspections. |
| | | Environment protection. Compliance/ certification. Discharges. Local impacts on people and the environment. Mine rehabilitation. | |
| | | Environment protection. | |
| | Local and district authorities. | Local environmental monitoring. Impacts. | |
| | | Community socio-economic development. | |
| | Stock Exchange and SFC. | Listing Rules compliance and protection of minority shareholders interest. | Public announcement and shareholders, meetings, regular publication of financial results. |
|  Investors | Major investors. Smaller-scale investors. | Good governance. Regulatory compliance. Financial performance. Tailings management. Hazardous materials management (e.g., emission compliance). ESG programs. Transparent disclosures. Adherence to international standards. | Regular reporting, investor communication, roadshows and social media platform. |

Our engagement with stakeholders (continued)

| Who are our key stakeholders? | | What are the issues that matter? | How do we engage? |
|--|---|--|---|
|  Workers and unions | Employees and Consultants. Trade unions. | Company vision and mission. Worker compensation and conditions. Accommodation and caring. Occupational Hygiene, Health & Safety. Local employment (% local). Purchasing (local). Supply chain (local contractors). Grievance resolution. Child labour. | Senior leadership team ESG meeting. Town Halls. Employee surveys. Performance incentives. Adequate safety and professional training. Grievance mechanisms. |
|  Local communities | Host, village, town and district communities. | Infrastructure development and sharing (e.g., roads). Operational interactions (blasting, noise, vibration). Illegal mining / equipment / fuel theft. Unexploded ordnance clearance. Community health and safety. Support for local celebrations. | Via Unions and local village chief. Regular meetings with community relations team. Community town halls. Public announcements. Community projects. |
|  Business partners | Contractors. Civil society organisations. Universities. | Community programmes. Social well-being. Economic / job opportunities. Supply chain development. Technology advancement.' | Active contractor management. Collaborative projects. Workshops. Technical development project. |

Our people

Our aim is to promote mutual prosperity and development, with all our people united behind the same collective goal. Our corporate vision is to be ‘a prominent gold producer well-recognised around the world’. In pursuing this, we have been promoting an inclusive culture. Our approach has been to fuse Chinese and international management models, with the goal of igniting a passion for work, and encouraging creativity among our employees.

> Workforce highlight



99%

99% of the workforce are local employees.



Our culture

Our corporate culture seeks to promote ‘mutual prosperity and development’. By this, we mean that we want to build an organization where the interests of the employees and the company are aligned so that shareholders, managers and workers share the successes and face the challenges together, as they are all invested in the same collective goal.

Led by Chairman Wang Jianhua, teams across our company are united by a shared vision and mission. The company has developed a management model and a long-term incentive mechanism that seek to drive effective performance, minimise costs and improve efficiency.

At our operations, we seek to ensure our workforce are kept aware of developments in the business and are actively engaged.



Aspects of our culture



An equal culture with consistent interests and mutual respect.



An open culture where people know what others are doing.



A survival culture in which enterprises are competitive internally, low-profile externally and open to the market.



A growth culture that despises complacency and encourages learning from each other.



A collaborative culture in which I assist the person in charge and I take charge when there is no person in charge.



A harmonious culture that benefits the community and the environment.



Our business philosophy

Safety and Sustainability

We prioritise safety and are committed to sustainable development of the company

Respect and Communication

We respect and trust each other, fostering understanding through close communication

Learning and Growth

We encourage learning and continuous improvement, growing together with the company

Transparency and Honesty

We are aware of each other's work and follow through on our words

Striving and Persistence

We work with unwavering dedication to create a better life

Collaboration and Accountability

If someone is in charge, I will assist; if no one is in charge, I will take charge

Our workforce

We employ approximately 7,000 people across our operations in China, Laos and Ghana. We also engage a sizeable contractor workforce across our sites. Approximately 2,100 contractors were engaged at Sepon and 1,071 at Wassa in 2022.

Workforce composition 2022 (number)

| Location | Total direct Employees |
|-----------------------------|------------------------|
| Wassa | 1,872 |
| Sepon | 2,237 |
| Wulong | 1,143 |
| Jilong | 1,099 |
| Huatai | 227 |
| Hanfeng | 451 |
| Chifeng Gold (Total) | 7,029 |

Diversity and inclusion

We recognise the benefits of having a workforce that includes a diverse range of people who have been recruited on the basis of merit and who possess a combination of abilities, aptitudes, skills, knowledge and potential.

We do not tolerate discrimination of any kind – on grounds of race, colour, sex, religion, political opinion, nationality or social origin, as specified by the International Labour Organisation.



Employee engagement

We seek to ensure our workforce are kept aware of developments in the business.

For example, at Sepon, we hold regular meetings between Human Resources representatives and departmental leadership to explore whether there are any employee concerns and what support may be required. We provide updates to employees, normally by the company President, on company performance and business developments. In regular operations, we hold pre-start meetings to communicate key messages related to safety or to create awareness of company values. We issue an LXML newsletter monthly to update the entire workforce on company performance and to highlight external issues that may have an impact on our employees. We regularly meet and discuss issues with trade union officials.

At Wassa, our internal stakeholder engagement standard sets out categories of internal stakeholders and lists those who are accountable for communication with them. The standard provides a framework for ensuring that communication is targeted and effective. It sits alongside our stakeholder engagement plan, which sets out recommended methods and structures for communicating with internal and external stakeholders.

Training and development

Our businesses provide training and development opportunities, including field-based training, assessments, classroom-based and online courses. Our approach is to align training to an individual's needs and role and the business's requirements. Safety training is compulsory for every employee, contractor and visitor to our mine site.



“The opportunity to interact, learn and exchange ideas through programmes such as this is invaluable. I am excited to meet my mentor and cohort members, and tap into their knowledge and experiences.”

BOATEMAA HAMMOND
CORPORATE AFFAIRS DEPARTMENT / WASSA

Supporting women in mining

Wassa continues to support the 'Women in Mining' initiative, which promotes the employment, retention and progress of women in the mining industry. As part of this, one-to-one coaching and mentoring has been provided to a number of our female engineers and leaders, which has supported their career development.

In 2022, we received five awards in the Women in Mining and Energy Award (WIMEA) in Africa. The awards are endorsed by the Ghanaian Ministry of Energy and are designed to acknowledge and celebrate the role, contribution and achievements of women in Ghana's mining and energy industries and ultimately to create awareness on the need for increasing women's leadership and participation in the mining and energy sector. The awards promote UN Sustainable Development Goals 5 and 10, to achieve gender equality and empower all women and girls; and to reduce inequalities.



To accelerate the internationalization of Chifeng Gold, the company has established a 'Golden Seeds' cultivation programme to develop specialised talents and personnel who will form the backbone of the company's future. The initiative uses multi-dimensional training methods such as concentrated training, rotational assignments, and mentoring to develop individuals' professional capabilities.

At Wassa in 2022, we provided more than 44,000 hours of training, representing approximately 24 hours of annual training per member of our workforce. Focus areas included technical, supervisory and managerial, safety, statutory compliance competency development – comprising heavy mining equipment operators training, coaching and mentoring for employees across the mine. In addition, skills training covers our Community Youth Apprenticeship Training and Graduate Training in Core functional areas.

We also provide a range of development programmes for trainees.



44,000

In 2022, Wassa provided more than 44,000 hours of training for the workforce.

At Sepon, we provided a total of 44,483 training hours in 2022. The courses covered topics such as induction, safety, technical matters, permitting, language skills and professional development. An important focus is on supervisor training, which includes modules on safety, people management, quality management, and production.

Local employment and staff development

Our goal across Chifeng Gold is to hire local people wherever possible, and to develop the capability of local people.

For example, LXML's focus is on specific programmes that develop the capability of Lao nationals, particularly those from within the local impact areas. Our recruitment strategy seeks to provide opportunity for local people in the first instance. Development initiatives include an apprenticeship program, educational scholarships, support for graduate engineers, courses on supervisor and leadership development, coaching, and professional development training in soft skills. With the development of the underground mine, we are also developing relevant capabilities among Lao national employees.

LXML also provides competency-based training which seeks to support people in operational roles to develop the skills and competencies required in their roles. This involves coaching and on-the-job training by area assessors, supervisors and expatriate technical advisors. LXML is currently running this initiative for 895 employees. The programme provides employees with practical skills that can be used outside Sepon.

Wassa Traineeship Programme

| | Disciplines | Participants in 2022 |
|--|--|----------------------|
| Industrial attachments | Mining, engineering and social science disciplines | 115 |
| National service | Mining, engineering and social science disciplines | 120 |
| Internships (post National Service) | Strictly mining, safety and other mining related Engineering disciplines | 16 |
| Graduate Training | Strictly mining, safety and other mining related Engineering disciplines | 4 |
| Community Youth Apprenticeship Programme | Equipment operations, technicians, and welding | 37 |
| Educational / Field Trip Exposure | Strictly mining, safety and other mining related engineering students | 140 |



Workplace health and safety

We are looking to build a culture across Chifeng Gold in which safety is integrated into everything we do.

We prioritise workplace safety and the health and development of our employees, implementing systematic measures and protocols to achieve these goals. This includes occupational health measures, measures to ensure safe production, teamwork, risk management and the implementation of safety and quality management systems. Wherever possible, we aim to enhance safety through automation to minimise risks to people.

In 2022, at Golden Star, we ran programmes to review the practicality of corrective actions recommended by incident investigations. We also carried out risk management training for supervisors and superintendents, examining tools and the mine's risk register. We undertook a gap analysis of practice against the standards in our working at height and crane and lifting standards to assess their effectiveness and align employee practices against the required standards.

At Sepon, we carried out classroom-based safety training in 2022, covering topics such as 'stop and think', safety for supervisors, induction, first aid, fatigue awareness, job safety analysis, incident investigation, manual handling and others.

The LXML Safety, Health and Environment performance scorecard

Our SHE performance scorecard is an essential part of how we assess and manage organisational goals. It includes target setting in areas such as harm avoidance, risk management, and training and development. The SHE management system has 13 main elements with sub-elements that align with the ISO 45001 Health and Safety Management and ISO 14001 Environment Management system. A drive for continuous improvement underpins our system and our approach.

Total injuries

| Location | Total recordable injuries 2022 |
|------------------------------|-----------------------------------|
| Wassa | 2 |
| Sepon | 14 |
| Wulong | 10 |
| Jilong | 4 |
| Huatai | 8 |
| Hanfeng | 33 |
| Chifeng Gold (totals) | 71 |



2.73

In 2022, the total recordable injury frequency was 2.73.

Community engagement

As part of our long-term plan, we will continue to support local communities to stimulate economic benefit. This engagement is fully in line with our core objective: ‘To benefit more people through the development of Chifeng Gold’.

> Community highlight



\$3m

LXML purchases at least \$3 million worth of local produce through 30 local businesses.



Our contribution

We seek to contribute to host communities through direct economic uplift, by contributing to community development funds, by paying our fair share of taxes and prioritizing local hiring, and by supporting local vendors through procurement and training.

Our activities also have beneficial indirect economic impacts, such as by supporting companies in the supply chain by providing jobs or purchasing goods and services produced locally. Our activities also help contractor companies and individuals prosper. Through our training, we provide the local workforce with skills and knowledge that can be used outside our own industry.

Our operational practices, environmental facilities and occupational health and hygiene monitoring programmes seek to make sure that the impacts of our activities on the health, safety and wellbeing of the local community are minimised.

Local procurement

Wherever possible, we seek to purchase goods and services from local suppliers – that is, those who are in adjacent communities to our operating sites, or from the region, and then in-country.

Local engagement in action: Golden Star Oil Palm Plantation

The Golden Star Oil Palm Plantation ('GSOPP') was established in April 2006 as a non-profit subsidiary of Golden Star Resources. GSOPP, in partnership with the Traditional Authorities, and affected farmers, and with the support of the agro-forestry industry, promotes the development of oil palm plantations among our catchment communities, using the smallholder concept.

Through GSOPP, we continue to advance the businesses objectives of reducing poverty through employment generation and promoting wealth creation through sustainable agri-business. Funded through the allocation of US\$1 per ounce of gold produced, to date we have directed over US\$6.6 million to this initiative.

US\$6.6m

Generated to date towards wealth creation through sustainable agri-business.





Supporting local livelihoods at LXML

In cooperation with the Netherlands Development Organization, LXML increased incomes for smallholder farmers in rice production by improving the quantity and stability of quality milled rice for 1,900 farmers through improved farming methods. Rice farmers produced 2.2t/ha of rice before the project, and increased output to 3.5t/ha, providing greater food security for the district.

LXML has invested approximately US\$1 million to develop a citrus industry in Vilabouly District through an Australian company – Ironbark – with 20 years' experience exporting citrus fruits. With technical support, 48 families planted 26,000 trees in 43 hectares. In 2022, production of citrus fruits in Vilabouly District reached over 400 tons. LXML has supplied irrigation and other support to increase production.

Steps have also been taken to improve access to credit and savings services, thereby supporting rural areas access to finance.

In cooperation with GIZ and AusAid since 2012, LXML has established agricultural microfinance facilities supporting 55 villages in Vilabouly and Sepon Districts with 5,929 participating members reporting US\$2,452,546 in savings and US\$1,476,860 in current loans.



US\$50m

The combined income generated for local people from LXML purchases.



1,900

Farmers helped by LXML to improve the quality and stability of milled rice.



26,000

Trees planted from LXML investment in the citrus fruits industry.

Community projects

Wassa operates a Development Foundation, which supports the local community. The Foundation makes financial contributions to the community – providing US\$1 for every ounce of gold we produce plus 0.1% of pre-tax profit. We also run community development programmes, led by NGOs that specialize in development.

We support economic and capacity building initiatives such as sustainable livelihoods projects that promote diversification beyond mining. The approach involves encouraging local procurement. Golden Star Wassa was one of the first organisations to report against the Local Procurement Reporting Mechanism, a mining sector standard developed in part by our long-standing partner GIZ. Adopting this standard has guided the company to improve various procurement processes to support local businesses. We communicate procurement opportunities to local suppliers through established consultation mechanisms.

LXML Sepon is improving livelihoods by providing access to basic services, and by empowering villagers to achieve their own development priorities.

In consultation with community leaders in 72 villages around Sepon mine, LXML has invested approximately \$15 million in the Village Development (now called the FADG, or Fund for the Assistance of Disadvantaged Groups) and Community Trust Fund since 2003 to build schools, roads, latrines, fishponds, a potable water supply, and small livelihood projects benefiting thousands of local people.



The Community Trust Fund is designed to improve service delivery and mitigate the impact of Sepon mine in alignment with Lao Government's National Socio-Economic Development Plan.

The Village Development Fund offers grants of between US\$8,000 and US\$16,000, based on the number of households. In total, more than 260 projects have been implemented across 47 communities, with a total investment of US\$3 million to date. Projects are selected by villagers, who contribute a counterpart of at least 10% of the total value, through finance, time, or in-kind support to encourage ownership.

Infrastructure support

Through ongoing engagement with our stakeholders at our operating sites, we are made aware of local needs for infrastructure support as well as of the impact of our activities on existing local infrastructure, such as road use. We invest in infrastructure development, such as road construction and river cleanup, to bring benefits to local community residents.

Building road safety awareness in the community

As part of Golden Star's commitment to ensuring the safety and wellbeing of its host communities, the Community Relations and Safety team, in collaboration with Akyempim opinion leaders, police and the local Ghana Private Road Transport Unit, organized a one-day educational talk on road safety for motor riders, tricycle riders and taxi drivers within our host communities. The talk focused on pre-start checks, safe driving, adherence to road traffic regulations and road traffic offences and their consequences.



Promoting road safety is one of the most important local benefits we can deliver to our community.”

SHADDRACK ADJETEY SOWAH
MANAGING DIRECTOR, GOLDEN STAR
(WASSA) LIMITED



Working in partnership to support small and medium-sized businesses

In its current partnership with GIZ (Gesellschaft für Internationale Zusammenarbeit), our Wassa business is focused on local and regional small and micro-sized enterprise development in the context of its mining operations. The outcomes of this project support generic SME development needs and have validated SME business development models piloted by Golden Star prior to project inception and implementation.

*Leveraging Leading Practices in Mining Local Procurement as a Foundation for Enhanced Sustainable Development in Ghana's Western Region'.

Community health and safety

In cooperation with the Lao Ministry of Health, Lao Women's Union, and UNICEF, LXML Sepon has invested approximately US\$5 million in health outreach and maternal and child nutrition programmes.

The '1,000 Day' project, which seeks to improve maternal and child health, reached 250,000 children, distributing 2.7 million nutrition sachets of micro-nutrients, and trained 2,000 volunteers, midwives, and Lao Women's Union members.

LXML invested US\$270,000 with Australia's MacFarlane Burnet Institute to deliver maternal and child health programmes in Vilabouly District.

LXML has supported the Lao Paediatric conference, organized by Health Frontiers, for thirteen years. LXML has provided financial support and medical equipment to Vilabouly hospital, rural clinics in Vilabouly District, Savannakhet hospital, and Mittaphab hospital in Vientiane, building new wards and latrine blocks, purchasing ambulances, water supply systems, incubators for premature births, and other essential medical equipment to support primary health objectives that benefit women and children.

Community safety has also been a focus in LXML. We have, for example, been supporting the elimination of unexploded ordnance in the region around the mine sites.

Protecting the environment

In managing environmental impacts, our operating sites work from well-established frameworks. We are working to ensure all our sites align with international industrial standards.

> Environmental highlight



We continued to progress the development of renewable energy sources for our operations.



A systematic approach

Our management systems and infrastructure are designed to mitigate pollutant emissions from operations and rehabilitate land to usable condition. Our Wassa and Sepon sites operate management systems that are aligned with ISO14001, and their implementation is overseen by onsite managers and specialists.

Our operations assess environmental risks, considering the potential impact and consequence of specific incidents and events as well as longer-term risks. Operational risk registers are updated, and actions carried out to mitigate and control risks.

Climate change and energy

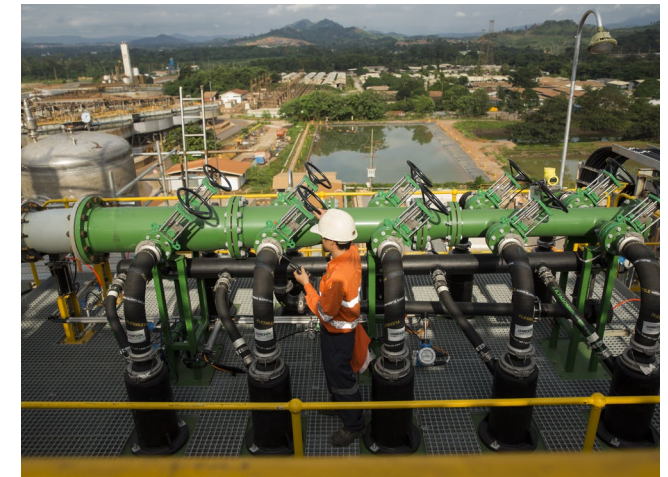
We recognise that mining operations are energy intensive and that our emissions contribute to climate change. We are committed to energy saving and emissions reduction and have implemented measures such as substation refurbishment, underground dewatering, and recycling – which contribute to greater energy efficiency.

We are developing our processes for reporting on greenhouse gas emissions and energy consumption. We have completed initial work to measure and report on carbon emissions and energy consumption at two sites, Wassa and Sepon. The results of this work are shown below. We aim to build our capability for reporting these emissions at all sites in future.

Carbon emissions and energy consumption at Wassa and Sepon

Carbon emissions at Sepon totalled 130,000 tonnes of carbon dioxide in 2021 and 120,000 tonnes in 2022. Wassa emitted 72,000 tonnes in 2021 and 73,000 tonnes in 2022. Energy consumption at Sepon was 2.6 million gigajoules in both 2021 and 2022, and at Wassa was 727,000 gigajoules, in both 2021 and 2022.

All carbon at both sites is emitted through use of energy, that is, through combustion of fossil fuels. It is believed that there are no significant direct emissions of carbon dioxide, other than fleet fuel consumption, in the mining and processing operations.



Carbon emissions, energy consumption at Sepon and Wassa 2021-22

| | Sepon | | Wassa | |
|---|-----------|-----------|---------|---------|
| | 2021 | 2022 | 2021 | 2022 |
| GHG emissions, t CO ₂ ¹ | | | | |
| Scope 1 | | | | |
| Energy | | | | |
| Electricity | NA | NA | 44,905 | 47,013 |
| Diesel | 129,110 | 119,047 | 26,412 | 25,128 |
| Gasoline | 53 | 53 | NA | NA |
| Jet fuel | 456 | 688 | NA | NA |
| LPG | 318 | 288 | 24 | 15 |
| Scope 2 | | | | |
| Electricity | 0 | 0 | 833 | 873 |
| SUM Scope 1&2 | 129,937 | 120,076 | 72,174 | 73,029 |
| Energy consumption, GJ | 2,673,059 | 2,640,286 | 727,157 | 727,291 |

¹ Carbon emissions are reported in tonnes of carbon dioxide, not the usual unit of tonnes of carbon dioxide equivalent, because emissions of other greenhouse gases at the sites are not known. It is not believed that other GHGs would be significant to the sums.

Probably the only obviously unusual aspect of the emissions is that at Sepon, there are no emissions associated with electricity. All of Sepon's power is provided by an external supplier that sources 100% hydropower: the United States' Environmental Protection Agency classifies hydro's operating emissions as zero-carbon.

Carbon intensity and energy intensity¹

Sepon has an average carbon intensity (CI) in 2022 of 18,124 tonnes of carbon dioxide per tonne of gold produced; Wassa's average is 15,089 tonnes of carbon dioxide per tonne of gold. The carbon intensity of Sepon's copper in 2022 is 3.1 tonnes of carbon dioxide per tonne of copper.



Carbon and energy intensities at Sepon and Wassa, 2021-22

| | Sepon | | Wassa | |
|-----------------------------------|---------|---------|---------|---------|
| | 2021 | 2022 | 2021 | 2022 |
| Carbon intensity | | | | |
| Gold CI, t CO ₂ /t | 20,771 | 18,124 | 16,378 | 15,089 |
| Gold CI, t CO ₂ /ounce | 0.59 | 0.51 | 0.46 | 0.43 |
| Copper CI, t CO ₂ /t | 3.1 | 2.5 | NA | NA |
| Energy intensity | | | | |
| Gold, GJ/t | 427,296 | 398,511 | 165,013 | 150,268 |
| Gold, GJ/ounce | 12 | 11 | 5 | 4 |
| Copper, GJ/t | 0.007 | 0.006 | NA | NA |

¹ Carbon intensity and energy intensity are the quotients of the absolute emission and energy figures divided by the amount of product produced.

² The dataset is named 'gold, at regional storage/kg/RER'. <https://ecoinvent.org/>

³ The dataset is named 'copper, primary, at refinery/kg/GLO'. <https://ecoinvent.org/>

The average CIs of Sepon's and Wassa's gold are within plausible range of the global default value for gold production of 13,200 t CO₂/t gold, published by ecoinvent.² The average CI of Sepon's copper, 2.8 t CO₂/t copper, is roughly equivalent to the global default value of 3.14, published by the life cycle inventory database, ecoinvent.³

Renewable energy

As part of our commitment to emissions reduction, we are currently evaluating the potential of renewable energy sources for our operations. We are exploring options for renewable energy projects with an aim to reduce emissions by more than 50,000 tons CO₂ annually. In particular, a solar system is under construction by Jilong where full capacity will be installed and ready for business operation by the end of 2024. Meanwhile, Wulong, LXML and Wassa are also planning to build their own solar systems, which will enhance our capability in renewable energy use.

Greenhouse gas removal through rock weathering

Our Wassa business has partnered with the University of Southampton in the UK to undertake research on re-purposing mine waste for carbon dioxide (CO₂) removal via enhanced rock weathering and mineral carbonation. The project aims to investigate enhanced weathering as a strategy to remove the greenhouse gas, CO₂, from the atmosphere. Enhanced rock weathering and mineral carbonation are techniques which can draw down CO₂ from the atmosphere.

While the company's energy management initiatives are looking at ways to reduce energy consumption at site and ultimately reduce emissions, there may be some emissions that cannot be reduced. This project could balance those emissions by removing CO₂ from the atmosphere.

The project involves characterization of tailings material – to calculate carbon dioxide removal potential, mineral carbonation experiments in controlled experiments offsite, followed by further testing on site using tailings produced, and ongoing monitoring of locations where oil palms are planted on mine tailings to quantify weathering rates, and soil organic and inorganic carbon accumulation.

“

Reducing waste from the mining industry is an important piece in the puzzle of sustainability, and using mine tailings for carbon dioxide removal via enhanced weathering is a novel solution. We thoroughly enjoyed fieldwork on site in Ghana, and it has been great to be supported by the team at GSR throughout our work.”

MILLIE DOBSON AND CHRISTINA LARKIN, SCHOOL OF OCEAN AND EARTH SCIENCE, SOUTHAMPTON UNIVERSITY, UK

“

Working with the Wassa team has been a fantastic opportunity for us. Mining can be a particularly tricky industry to decarbonise, and yet metal mining is needed for a sustainable future, so working with mining companies on carbon drawdown solutions is very important.”



Environmental management and monitoring

Our sites maintain environmental monitoring programmes aligned to key regulatory requirements. These cover air, noise, sediment, biological, and water quality monitoring. Our businesses record and assess the severity of any environmental incidents that occur, such as leaks or exceeding discharge limits. Incidents are categorised by their impact – both potential and actual.

Waste and tailings management

We are dedicated to minimizing the environmental impact of our operations, including the avoidance of waste. Effective waste management includes the safe stewardship of mine tailings.

We adopted a dry discharge method for domestic mine tailings slag. We also aim to reduce tailings in stockpiles, and re-purpose them as filling materials for mine geological environment management and road subgrade materials where feasible. In addition, we take proactive measures to minimize the impact of tailings on the environment, including covering tailings discharged into the tailings pond with soil, planting grass for greening, and conducting ongoing monitoring of groundwater, soil, and solid waste either internally or by enlisting the expertise of third-party specialists.

At Wassa, tailings storage facilities (TSF) are designed and managed in line with Ghanaian regulations and due consideration of ICOLD (International Commission on Large Dams) standards and guidelines from the Australian National Commission on Large Dams (ANCOLD), and the Canadian Dam Association (CDA). We carry out monitoring, inspections and audits in line with global industry standards. During 2022, following regulatory approvals, tailings deposition into TSF 2 cell continued and progressed successfully. Construction work for the TSF 2 cell began and was completed after notification to the Environmental Protection Agency and the Minerals Commission.

At Sepon, the operation of the tailings storage facilities we own and operate is overseen by an Engineer of Record. The facilities are audited by an independent expert annually. As of late 2021, we also supply alkaline flotation tailings to the Khanong pit as part of an integrated backfill closure strategy. We design and operate our TSF to the Australian National Committee on Large Dams Incorporated (ANCOLD) – Guidelines on Tailings Dams. Closure plans are in place for all facilities and monitoring activities are in line with national regulatory requirements. The Tailing Storage Facility operating manual provides a clear framework for roles and responsibilities, regular operations, monitoring, inspection, maintenance, data collection and reporting, and emergency response.

Tailings produced (m³)

| Location | 2022 |
|-----------------------------|-------------------|
| Wassa | 2,186,623 |
| Sepon | 13,600,425 |
| Wulong | 91,300 |
| Jilong | 54,549 |
| Huatai | 12,748 |
| Hanfeng | 551,296 |
| Chifeng Gold (total) | 16,496,941 |

Water management

We recognise that access to water is a fundamental human right, and a vital shared resource.

At our sites, we assess water-related impacts using hydrological and hydrogeological investigations and monitoring. We aim to be careful stewards in our water extraction, use, and discharges.

Water monitoring

Sepon has 73 water quality monitoring points, and Wassa 148. Thousands of water quality samples are taken each year – more than 25,000 at Sepon in 2022 and more than 8,700 at Wassa.

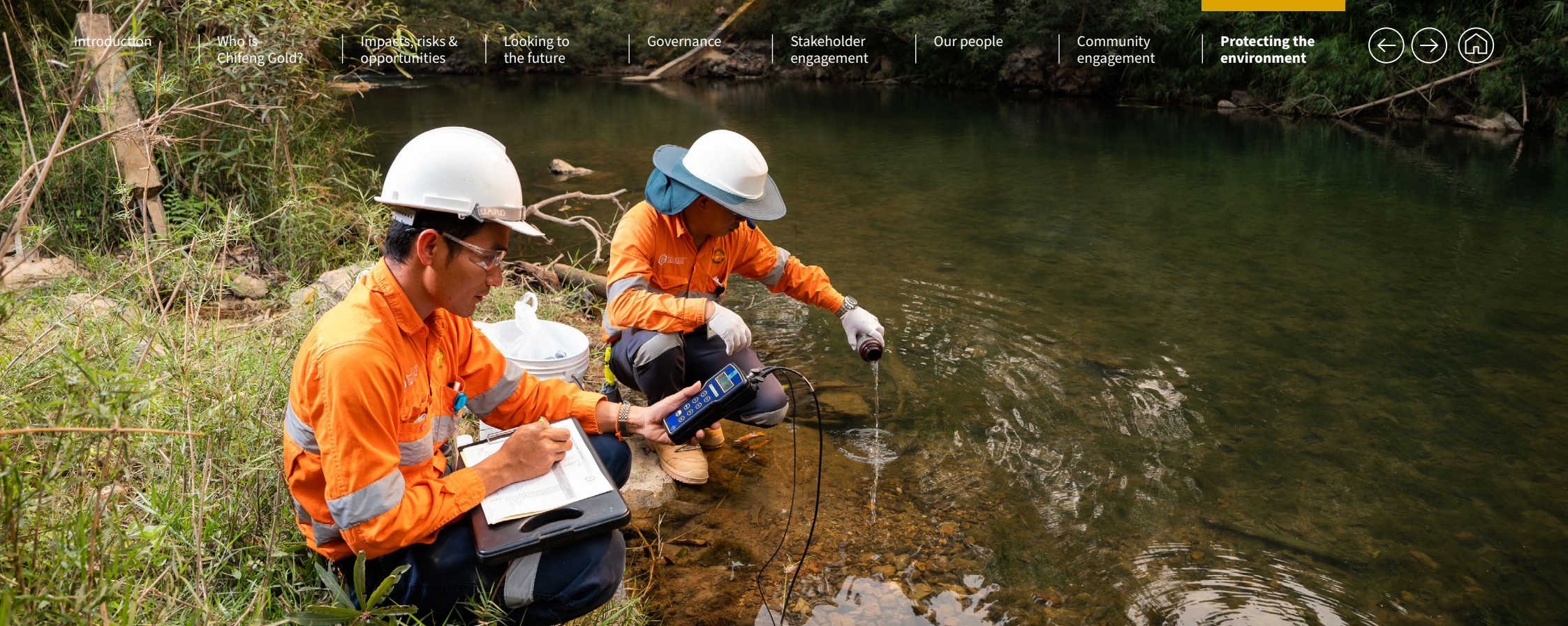
At Sepon, water monitoring programmes in our mining lease area and surrounding catchments help to ensure we meet or surpass water quality requirements. In 2022, we achieved 100% completion of our operations' scheduled water sampling and 99.2% compliance with our ambient water quality requirements.



“

We are committed to protecting the natural resources of land and water at our operating locations.”

CARL BAKER-DULY / GENERAL MANAGER – OPERATIONS / SEPON



Routine scheduled ambient surface water quality monitoring was undertaken at 19 locations at Sepon in 2022. Routine scheduled effluent surface water quality monitoring was undertaken at 54 locations in 2022, with more than 2,100 samples collected and analysed per month. We achieved compliance levels exceeding our management plan targets for ambient surface water monitoring.

Our Wassa business complied with all requirements for monitoring in 2022. Elevated total suspended solids (TSS) were detected on a few occasions at some sites that resulted from unauthorized mining activities and storm events during the sampling period. Remedial actions are undertaken to mitigate contributions from the GSWL operations

including the maintenance of existing silt traps, sediment control ponds for improvement in functionality, and the establishment of vegetation cover to prevent erosion.



2,100

2,100 water quality samples collected and analysed every month at Sepon.



Biodiversity

Our operating sites seek to protect biodiversity through management measures such as Biodiversity Action Plans (BAP) developed as part of Environmental Impact Assessments for major projects, and by implementing controls such as maintaining IUCN Red List registers and preservation of select areas of high biodiversity value.

LXML Sepon Gold expansion project: Biodiversity Action Plan

The project entails the expansion of existing open pit gold mines, an extension of the existing Western Tailings Storage Facility and development of an underground mine. We have undertaken rigorous environmental and social baseline and impact assessments for each developmental stage in line with GOL legislation and international standards. The project has been designed, constructed, operated, and managed according to international best practices.

The overriding aim of the BAP is to avoid and minimise potential adverse impacts on biodiversity values, wherever practical. The BAP also provides a framework for the development of a Biodiversity Conservation Strategy and program that further minimises residual impacts to priority biodiversity values and where possible to offset unavoidable residual impacts.

A key principle for the implementation of the BAP is the mitigation hierarchy. As per IFC Performance Standard 1, adopting the mitigation hierarchy is “to anticipate and avoid, or where avoidance is not possible, minimize, and, where residual impacts remain, compensate/offset for risks and impacts to workers, affected communities, and the environment.” The application of the mitigation hierarchy in the BAP is to implement a set of prioritised steps to avoid, minimise and restore the potential impacts of the Project on biodiversity wherever practical, and offset residual impacts. The highest priority action is avoidance, while the lowest priority is providing offsets or compensation.



Land management

Our approach to mine rehabilitation is to rehabilitate sites as we close active mine areas and provide for future productive viable land uses.

At Sepon, we link our mine rehabilitation programme to the regional climate by beginning rehabilitation works at the beginning of the wet season when soil moisture content is sufficient to maximize the successful rate of vegetation establishment and growth. This approach minimizes sediment erosion and transportation during wet season conditions. It is also guided strategically by the objectives outlined in the closure plan, which is regularly updated via consultation with relevant stakeholders.

Progressive rehabilitation activities included earthworks to reshape waste dump and other mine or exploration operation disturbed landforms, topsoil application and spreading, mulch application, and erosion control bamboo or jute matting and fencing, contour ripping, hydroseeding and hand seeding for vegetation establishment, hand planting of nursery propagation stock and plant maintenance of weeding, composting, fertilising, mulching, and watering. In 2021, we established nursery bamboo trials in various mine waste types, and in 2022 bamboo plantation trial plots in over eight hectares of mine waste areas and approximately two hectares on community land.

New mine rehabilitation areas completed 31.63 Hectares (Ha) against a forecast plan of 22.04 Ha. Progressive rehabilitation works completed were above plan due to the availability of additional areas. New land disturbance activities in 2022 was approximately 217 Ha, from gold mining deposit areas and exploration drilling prospects.

Annual land rehabilitated (Hectares)

| Location | 2022 |
|-----------------------------|--------------|
| Wassa | 5 |
| Sepon | 32 |
| Wulong | 4.42 |
| Jilong | 2.84 |
| Huatai | 4.25 |
| Hanfeng | 1.54 |
| Chifeng Gold (total) | 50.05 |

At Wassa, rehabilitation works undertaken in 2022 included vegetation establishment at TSF2 embankments, TSF1 spillway high walls and slope stabilization to prevent erosion. Rehabilitation maintenance and monitoring of reclaimed areas continued during the year. Care and maintenance were undertaken at the TSF1 oil palm plantation by GSOPP as part of the closure requirements.

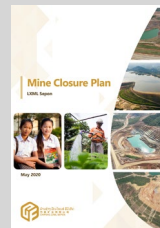
Approximately 18.31 Hectares (Ha) of land was disturbed in 2022 as part of mining and exploration activities. Approximately 5.4 Ha of available land was rehabilitated at the Wassa mine site, including embankment stabilization at TSF2 cell.



Emergency preparedness and response

We have processes in place and responsibilities allocated for response in case of an environmental incident. At Sepon, for example, our Dam Safety Emergency Plan outlines responsibilities and processes for responding to dam safety emergency situations. It sets out the role of the Emergency Response Team – to manage the emergency from a site / business perspective to protect LXML's employees, stakeholders (including downstream communities), assets and the environment, as well as reputation.

Mine closure planning at LXML



Sepon continues to progress closure planning processes and make appropriate financial provisions through to end-of-mine life, as part of normal operations. We plan for mine closure and regularly update our mine closure plans. The current plan maintains mine operations (mining and processing of ore) until approximately 2033.

The LXML Sepon Mine Closure Plan (MCP) was last updated in 2020, its third iteration. The closure plan is developed as part of our ongoing closure planning process and is developed by a team of international experts. The plan provides an appropriate level of detail for a conceptual closure planning phase of mine operating life, is adaptable, provides a good basis to develop further closure planning options and is consistent with good practice guidance provided by the International Council of Mining and Metals for Integrated Mine Closure.

It includes conceptual closure strategies and guidance for 23 open pits, 20 waste rocks dumps, low grade ore stockpiles and Run-of-Mine (ROM), two tailings storage facilities, 64 water management facilities, roads and various infrastructure including processing plants, accommodation camps and maintenance workshops. Additional pits mined and landforms and facilities constructed are included in further iterations of the closure plan.

We recognize the need to undertake closure planning in close consultation with stakeholders. The Sepon Mine Closure Committee (SMCC) has met eight times since its inception in 2010. Implementation activities focused in 2022 on waste rock landform rehabilitation and in-pit mine backfill operations at a variety of sites. The mine closure plan is next scheduled for update in 2024.

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