

LUCARA  
DIAMOND



**2019**  
**SUSTAINABILITY REPORT**  
MAKING DIAMOND HISTORY



### **3 LUCARA DIAMOND CORP**

- 5 Message from the President & CEO
- 8 Governance & Ethical Conduct
- 11 Product Stewardship
- 12 Economic Performance

### **14 LUCARA BOTSWANA**

- 15 Message from the Managing Director
- 16 Message from the General Manager
- 18 Governance & Assurance
- 19 Policies & Business Continuity
- 21 Operations
- 25 Development & Exploration
- 26 Our People
- 30 Supply Chain
- 31 Health, Safety & Wellness
- 36 Partnerships & Engagement
- 39 Investing In Today & The Future
- 42 Environmental Performance

### **53 CLARA DIAMOND SOLUTIONS**

- 54 Supply Chain Innovations
- 54 First Year of Operation
- 55 Marketing Supply & Demand
- 55 Customer Privacy
- 55 Intellectual Property
- 55 Ensuring Provenance

### **56 MATERIAL TOPICS**

### **58 ASSURANCE REPORT**

### **61 CAUTIONARY STATEMENT**

Left image: workers at the conveyor belt

Cover images; Top: Aerial view of Karowe Mine; Middle: Farmworker at Mokubilo community farm; Bottom: Mining activities in Karowe Mine



View of conveyors and processing plants at Karowe

## ABOUT THIS REPORT

This is our eighth consecutive annual sustainability report. It is prepared in accordance with the GRI Standards (2016): Core option. The report covers Lucara Diamond Corp., Lucara Botswana (Pty) Ltd., the Karowe Diamond Mine, and Clara Diamond Solutions Limited Partnership. The data presented covers the calendar year 2019. This report has been subject to moderate assurance in accordance with AA1000 Assurance Standard (2008). This report comprises our third Communication of Progress to the UN Global Compact. The GRI and Global Compact Indices are accessible at [www.lucaradiamond.com](http://www.lucaradiamond.com), and the Cautionary Note Regarding Forward Looking Statements at page 60. All currencies mentioned in this document are in United States Dollars (\$), unless otherwise mentioned. Questions or feedback can be directed to the contact provided on the back cover.

## CORPORATE PROFILE

Lucara Diamond Corp. (Lucara) is a Canadian diamond mining company headquartered in Vancouver. We are listed on the Toronto Stock Exchange (TSX), Nasdaq Stockholm and the Botswana Stock Exchange under the symbol "LUC". Lucara is certified under the Responsible Jewellery Council Code of Practices, complies with the Kimberley Process, is a Participant of the UN Global Compact, and supports the UN Sustainable Development Goals (SDGs). Lucara is a member of the Lundin Group of Companies.

Lucara Botswana (Pty) Ltd. (Lucara Botswana) is our wholly owned subsidiary. We operate the Karowe Diamond Mine (Karowe) in Botswana. This open pit mine started operations in 2012, has current mineable reserves to 2026, and potential for underground mining to at least 2040.

Clara Diamond Solutions Limited Partnership (Clara) is Lucara's fully owned, secure, digital sales platform. By the end of 2019, Clara recorded its first full year of operation.



# LUCARA ADOPTS 10 UN SDGS

The UN Sustainable Development Goals call on all businesses to apply their creativity and innovation to solving sustainable development challenges, and represent the world’s agenda for equitable, socially inclusive and environmentally sustainable economic development.

We reviewed, identified and adopted 10 of the 17 SDGs which are most closely aligned with Lucara’s business and operations. During 2019, each department made commitments towards the adopted SDGs as we continue to incorporate them in our daily operations. During 2020, we will be setting targets against the SDGs.





  
**LUCARA**  
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In 2019, Lucara uncovered "Sewelô" (meaning "rare find"),  
an unbroken 1,758 carat near gem quality diamond

**LUCARA DIAMOND CORP**



## OUR MISSION

Using innovation, creating value, and making a difference across the diamond industry.

Lucara believes that sustainability is a long-term commitment that requires focus and discipline to help drive continuous improvements in all areas of our business. We also believe it is fundamental to our success as an organization and in delivering broad based, lasting economic and social benefits to all our stakeholders and the communities in which we live and work.

## OUR VALUES

- **Respect:** We respect and listen to our people, our communities and our local governments.
- **Health & Safety:** What we do at work, we do at home.
- **Transparency & Trust:** Communicating with openness and honesty.
- **Collaboration:** Creating positive economic and social benefits; partnering with our communities.
- **Integrity:** Delivering on our promises and commitments.
- **Entrepreneurial Spirit and Trail Blazing:** We empower our people to share ideas that improve our workplaces and our company.

## OUR PRIORITIES

- **Our People:** Mining exceptional stones, fostering exceptional talent
- **Safe & healthy workforce and communities:** Cultivating a culture of safety wherever we work and live
- **Sustainable development through partnership and collaboration:** Achieving more by working together
- **Delivering long-term and sustainable value for our shareholders and stakeholders**
- **Pursuing opportunities to grow our business**
- **Contribute to the Lundin Group's history of success and excellence**



## MESSAGE FROM THE PRESIDENT & CEO

I am pleased to present Lucara's eighth annual sustainability report to our stakeholders. 2019 was another year of firsts for us. This report highlights how innovation, award-winning health and safety performance, operational excellence, community engagement and investment initiatives all contributed, and are key, to our continued success. As participants of the UN Global Compact we are committed to implementing, disclosing and promoting its principles of human rights, labour, anti-corruption and environmental responsibility. This report serves as our Communication of Progress.

**Strong Performance** – Karowe experienced its best operating year in the history of the mine achieving record production and recovering its second diamond greater than 1000 carats and Botswana's largest diamond ever, the 1758 carat Sewelô. These operational successes are a testament to the commitment of our people and the quality of our assets and provide the company with opportunities to further grow and enhance our business. We are also proud of our Karowe First Aid Team who won the Inter Mine First Aid Competition for the first time. This was an incredible accomplishment for the team who were well supported by co-workers as the competition was hosted by Lucara Botswana.

**Product Stewardship** – Lucara takes pride in adhering to the Kimberley Process and being a member of both the Responsible Jewellery Council and Natural Diamond Council. Through the Clara Diamond Solution platform, manufacturers are able to purchase the specific rough diamonds needed to meet their polished demands. Clara provides both manufacturers and consumers certainty of diamond provenance from mine to polished stone. This allows customers and consumers the ability to purchase diamonds from companies with demonstrated strong licence. Over the course of 2019, the number of clients purchasing diamonds through the Clara platform has grown significantly as did the number and frequency of sales.

**Social Licence** – Community engagement drives our community investment programs and initiatives. Projects such as the Mokubilo Integrated Farm and the Letlhakane abattoir address specific needs identified by local communities and are aimed at improving the lives and livelihoods of the people living in those communities. Our goal is to invest in, and support projects and initiatives in order that they will be sustainable and continue beyond the life of the mine.

**Positioning for Growth** – Following the completion of the positive feasibility study for a potential underground mine, Lucara will move forward with early works in 2020. The underground opportunity, which would see diamond production continue for another 20 years, will provide benefits to employees and stakeholders through continued mining activities, training and skills development. Furthermore, Clara is now positioned to grow as we seek third party production to be sold through the platform complimenting the Karowe diamonds which are currently offered there.

**Sustainability Opportunities** – In 2019 we expanded our newly created Sustainability Department at the Karowe Diamond Mine with the addition of a Sustainability Coordinator, Community Investment Officer and an Administrative Assistant all of whom work along with our Community Liaison Officer in the Letlhakane office. Our staff and community workshops continue to highlight opportunities for improvement and advancement. Through these workshops, we developed priorities and objective statements under each of the 10 SDGs that we have committed to.

**Looking Ahead** – 2020 will signify not only a new year, but also the start of a new decade. Optometrists refer to 20/20 as clear vision. We, at Lucara, Lucara Botswana and Clara, have a clear vision of where we are headed and, through engagement with our stakeholders, what is expected of us. Building on the workshops we held this year, we will be setting targets and goals under each of the 10 SDGs. The targets and goals connect every aspect of our business from health and safety to environment to social to performance. We look forward to building on our successes through 2020.

At the time of publication of our 2019 Sustainability Report we find ourselves in lockdown during the COVID-19 pandemic. Through close collaboration with the Government of Botswana, communication with our employees and contractors and community engagement, we have remained operational, implementing health and safety measures to ensure the well-being of our employees and contractors. Across the world governments, companies and people are coming together while apart and working to keep each other safe and healthy. In Botswana, our team have been on the ground providing food hampers to those in need and dispensing masks, gloves and sanitizers. At all of our operations, those who were able to work from home were equipped to do so. This has been an unprecedented, trying time but at Lucara, we were fortunate to go into this crisis with a strong balance sheet and we are well positioned to weather the storm. Our people have demonstrated amazing strength, resilience, and determination, living our core values each and every day as we work to protect the future value of our business for all stakeholders including employees, shareholders, governments and local communities of interest.

Eira Thomas, President and CEO Lucara Diamond Corp.



Donation of food, soap, sanitizers in local communities

### COVID-19 RESPONSE

In 2020, in response to the COVID-19 pandemic, we rapidly implement our crisis management strategy, to protect the health and well-being of employees and contractors. As part of our COVID-19 response plan, Lucara contributed over 6.5 million Pula toward a range of relief efforts in Botswana which included a contribution to the Botswana Government COVID-19 Relief Fund, the establishment of a quarantine and testing facility, support for Gender-Based Violence Shelters, and the distribution of food hampers, soap, sanitizers, gloves and masks.








The Karowe Diamond Mine remained operational during the Botswana lockdown. We implemented measures that align with government-issued guidelines, including, travel restrictions, reduced on-site staffing (some employees were able to work remotely from home), and increased social distancing.



2019 TARGETS

2019 PERFORMANCE

2020 TARGETS

INNOVATION & ECONOMIC PERFORMANCE			
	<p>300,000 to 320,000 carats of diamonds sold \$170-200 million revenue Pursue joining SDG5 related events and activities</p>	<p>411,438 carats of diamonds sold \$192.5 million revenue</p>	<p>Sale: 350,000 to 390,000 carats Revenue: \$180 – 210 million Investment decision underground mining Digitize fuel management system Install stainless-steel XRT machines to reduce corrosion</p>
PRODUCT STEWARDSHIP			
	<p>Continue to demonstrate full compliance and grow diamond sales through the Clara platform ensuring diamond provenance from mine to finger</p>	<p>Demonstrated full compliance and grew participants and diamond sales through the Clara platform.</p>	<p>Continue to demonstrate compliance with leading rough diamond product stewardship frameworks.</p>
COMMUNITY DEVELOPMENT			
	<p>Limited micro-loan repayments required redirection to capacity building, and start-up of community-owned projects</p>	<p>Continued to support Mokubilo Farm Ground-breaking of the ablution block in Lethakane Plans developed for Lethakane sports complex Conducted feasibility studies for other community projects (Khwee and Mmadikola)</p>	<p>Ground-breaking of the sports complex Upgrading management systems for Mokubilo Commence Mokubilo Phase 2 expansion Support additional Karowe Village Initiative and community projects</p>
LOCAL CONTENT: LOCAL PROCUREMENT AND EMPLOYMENT			
	<p>Commence an analysis of our potential to increase local procurement with a view to developing target</p>	<p>99% of total workforce Botswana nationals Analysis and target setting on-going Bringing maintenance from TOMRA inhouse, thus also increasing local expertise.</p>	<p>Introduce a talent management framework Complete analysis and target setting</p>
HEALTH, SAFETY AND WELLNESS			
	<p>Zero Lost Time Injuries (LTI) Achieve OHSAS 18001 scoring of 80% Transition to ISO 45001</p>	<p>Placed top in inter-mine 1st Aid competition On-site health care unit and private medical doctors assist with HIV/AIDS and other health and wellness programs Recorded 2 LTIs Achieved 91% OHSAS 18001 score</p>	<p>Continue behaviour-based safety Zero LTIs 100% OHSAS 18001 score Transition to ISO 45001 certification Continue medical and wellness support</p>
PARTNERSHIPS			
	<p>Identify and expand collaboration on specific SDGs</p>	<p>SDGs being rolled out internally Water partnership with Debswana and Lethakane village On-going partnership with Lethakane town council developing new community projects Partnership with Dream Choice, Medupi Plant Hire and Trollope in building the rest rooms for the council/community</p>	<p>Set targets for adopted SDGs Support and implement partnership-driven efforts related to water and community development projects</p>
ENVIRONMENTAL STEWARDSHIP			
	<p>Review of energy efficiency Explore collaboration on water in Lethakane Transition Environment &amp; Community Relations to Sustainability Department Plan to develop test plots for land reclamation</p>	<p>Significant improvement in water recycling Excess water from pit dewatering provided to Debswana Expanded new sustainability department Studied use of renewables and battery storage Energy audit deferred; Land reclamation test plots deferred</p>	<p>Recruit additional environmental officer Finalize update of environmental management plans Conduct rehabilitation trials of slopes Closure and rehabilitation plan</p>


# GOVERNANCE & ETHICAL CONDUCT

We are committed to a high standard of corporate governance, as we believe that is important for the successful operation of the business and creating shareholder value.

## Board of Directors

Lucara's Board of Directors is primarily responsible for supervising the management of our business and affairs. Its authority is determined by the provisions of the British Columbia Business Corporations Act and by Lucara's Articles. The Board meets regularly to conduct its business, which includes the approval of the quarterly and annual audited consolidated financial statements<sup>1</sup>. The Board has established position descriptions for the CEO, Chair of the Board, Lead Director and Committee Chairs.

The Board regularly reviews its guidelines and policies and, not less than annually, considers how its corporate governance practices align with guidelines established by the Canadian regulatory authorities, and the Toronto Stock Exchange. Lucara is guided by the rules and regulations of the NASDAQ OMX (Stockholm) Exchange.



Women in leadership at Lucara continues to remain strong. Three of seven board members (43 percent) and three of four executives (75 percent) are women. This includes the President and Chief Executive Officer (CEO), the Chief Financial Officer (CFO), and the Vice President of Corporate Development and Strategy. At Lucara Botswana, two of three (67 percent) members of the executive team, the Managing Director and CFO, are women.

## Board Committees

The **Audit Committee**, comprised of three independent and financially literate Board members, reviews and reports to the Board on the integrity of the consolidated company financial statements, and has oversight responsibility for internal controls, accounting and auditing activities.

The **Corporate Governance and Nominating Committee**, comprised of three independent Board members, assists the Board in identifying qualified individuals for Board membership, develops and implements corporate governance guidelines, and reports annually to Lucara's shareholders on corporate governance.

The **Safety, Health, Environment and Community Relations Committee**, comprised of three Board members (a majority of whom are independent), assists the Board in oversight of health, safety, environment, and community risks and compliance with related legal and regulatory requirements.

The **Compensation Committee**, comprised of three independent Board members, is responsible for administering the corporation's executive compensation program and overseeing incentive plans.

<sup>1</sup> The composition, qualifications, mandate, meeting frequency and other information about our board of directors, is contained in the annual general meeting information and other sources accessible at [www.lucaradiamond.com](http://www.lucaradiamond.com)

Our Corporate Responsibility Charter guides us on how to be socially accountable to all our external stakeholders. Our contribution to the development of our host community goes beyond the creation of local employment. We also invest in important community development projects and create partnerships with local stakeholders to maximise our collective impact.

Furthermore, our Code of Business Conduct and Ethics sets out guiding principles for responsible and ethical behaviour that we expect from our directors, officers, employees and contractors. We require our contractors and suppliers to comply with the principles of the Code, including prohibition of forced labour and child labour laws.

#### KEY ELEMENTS OF CODE OF BUSINESS CONDUCT & ETHICS

- Honest and ethical conduct
- Respect for human rights and a harassment free workplace
- Avoidance of conflicts of interest
- Maintenance of confidentiality of Company information and protection of its assets and resources
- Full, fair, accurate, timely and clear disclosure of reports and documents submitted to regulatory authorities and for external communications
- Compliance with all applicable governmental laws, rules and regulations including insider trading, competition and anti-bribery laws
- Prompt internal reporting of violations of this Code
- Accountability for adherence to this Code

The full code is available at [www.lucaradiamond.com](http://www.lucaradiamond.com)



Karowe processing facility

We are supportive of global initiatives that address a wide range of corporate responsibility related issues. These include:

- The OECD Guidelines on Multinational Enterprises
- UN Guiding Principles on Business and Human Rights
- The Global Reporting Initiative
- The Voluntary Principles on Security and Human Rights
- The IFC Performance Standards on Social and Environmental Sustainability
- UN Global Compact and Sustainable Development Goals
- The Responsible Jewellery Council Code of Practices
- The Kimberley Process Certification Scheme
- The Natural Diamond Council (NDC) commitments on sustainability and compliance

We disclose payments to governments in compliance with Canada's Extractive Sector Transparency Measures Act (ESTMA), accessible at [www.lucaradiamond.com](http://www.lucaradiamond.com), and the EU Transparency and Accounting Directive.

## Responsible Mining Policy

We published our responsible mining policy in February 2020, which highlights Lucara's mission to responsibly mine rough diamonds while creating meaningful value for our stakeholders. Our approach to responsible mining incorporates environment, social, and governance considerations, as well as continual improvement, into all aspects of our business.

### LUCARA'S RESPONSIBLE MINING POLICY

- **Environmental Responsibility**

We are committed to sustainable development. As part of this commitment we endeavour to minimize the short- and long-term adverse impacts.

- **Social Responsibility**

We will initiate and promote on-going dialogue with a broad range of stakeholders across our operations, maintained in a spirit of transparency and good faith. Lucara recognizes that effective stakeholder engagement can create value and mitigate risk for both the Company and our stakeholders.

- **Good Governance**

We believe in conducting our business in a transparent manner that complies with applicable laws, respects human rights and safeguards our employees, contractors, communities and stakeholders.

- **Planning for a Positive Legacy**

We believe that engagement with stakeholders throughout the mine life cycle is critical for ensuring that our operations deliver positive economic and social benefits, while minimizing environmental impacts.



Mine worker instructing mine operations with appropriate PPE

## Whistleblower Policy

Our Whistleblower Policy allows anyone, including any employees of Lucara and its subsidiaries, to submit any concerns anonymously regarding accounting, internal accounting controls, auditing matters or other activities. All reports, including an independently monitored "tip-off" line in Botswana, are assessed by the Audit Committee, which can recommend corrective and/or disciplinary actions to the Board. In 2019, no incidents of corruption were registered by employees of Lucara or its subsidiaries.



Scoop for diamond sorting and grading

## PRODUCT STEWARDSHIP

Our customers include both small and global manufacturers, large, vertically integrated jewellery houses, and ethical customers. Our customers, and others involved in the diamond industry, consider provenance (place of origin) and use of responsible mining practices to be pivotal value drivers.

### Demonstrating Product Stewardship

#### Kimberley Process Certification Scheme (KPCS)

The Kimberley Process unites administrations, civil societies, and industry in reducing the flow of conflict diamonds defined as 'rough diamonds used to finance wars against governments', around the world.

Our continued compliance with the Kimberley Process ensures to our customers the source and place of origin of our diamonds from a 'conflict free' region. The Process is an international certification program, which imposes extensive requirements on its members (governments and companies) has been implemented to remove 'conflict diamonds' from the global supply chain.

### Responsible Jewellery Council (RJC)

In March 2018, third-party auditors certified our operations under the RJC Code of Practices. The COP provides a common standard for ethical, social, human rights and environmental practices, and the certification provides a strong system for assuring stakeholders, shareholders, customers and business partners that a company conducts its business responsibly. This re-certification is valid until March 2021.

### Natural Diamond Council (NDC)

Lucara is one of the founding members of the NDC, which represents 75 percent of the world's diamond production. NDC promotes the integrity and reputation of diamonds and the diamond industry. The NDC's members employ 77,000 people worldwide; create \$3.9 billion in direct and indirect benefits locally through employment, and \$6.8 billion in benefits are infused into local communities through the purchase of local goods and services.

### UN Global Compact

The UN Global Compact is a voluntary initiative based on CEO commitments to implement universal sustainability principles and to take steps to support UN Goals. Lucara Diamond Corp. became a Participant in February 2018 confirming our support for the Ten Principles of The Global Compact on human rights, labour, environment and anti-corruption.



We disclose our payments to the government of Botswana, comply with the Kimberley Process and Canada's Extractive Sector Transparency Measures Act (ESTMA). We are certified under the Responsible Jewellery Council Code of Practices and signatory to the UN Global Compact promoting universal principles on human rights, labour, environment and anti-corruption. Our commitment to ethical business practices contributes to promoting the highest ethical standards for Botswana.

## ECONOMIC PERFORMANCE

In 2019, Lucara's Karowe Mine in Botswana successfully completed its seventh full year of operations and continued to recover high value diamonds.

In terms of Specials, defined as single diamonds in excess of 10.8 carats, we recovered 786 stones (829 in 2018), totalling 24,424 carats (24,794 in 2018) from direct milling ore. This included 31 diamonds in excess of 100 carats (33 in 2018), of which two diamonds were in excess of 300 carats. This includes the historic 1,758 carat Sewelô diamond. Specials were also recovered in the treatment of historic, pre-XRT recovery tailings, including a 375 carat stone. No further treatment of historic recovery tailings is expected.

During the year, Lucara had sales totalling 411,438 carats (350,798 in 2018) for gross proceeds of \$192.5 million (\$176.2 million in 2018) at an average price of \$468 per carat. The average sales price per carat in 2019 was impacted by a higher recovery of finer diamonds, although recovery of Specials was still high. Lucara also sets aside certain size and quality splits for sale through Clara.

The Company recorded EBITDA (a non-IFRS measure) for the year of \$73.1 million (\$60.5 million in 2018) and an operating margin of 60 percent (57 percent in 2018), representing an operating margin per carat sold, a non-IFRS measure, of \$279 in 2019.

Overall operating expenses decreased approximately 15 percent, as 2018 saw the completion of a large waste stripping campaign in which a portion of operating expenses was capitalized to mineral properties. While the average price per carat sold was lower in 2019, the decrease in operating expense per carat led to an increased operating margin per carat sold from 57 percent in 2018 to 60 percent in 2019. An increase in total carats sold of approximately 17 percent from 2018 (350,798 carats) to 2019 (411,732 carats) was also a factor in the improved operating margins achieved in 2019.



Karowe Mine's open pit

### UNCOVERING "SEWELÔ" - "RARE FIND"

In 2019, Lucara recovered "Sewelô" (meaning "rare find" in the local Setswana language) an unbroken 1,758 carat near gem quality diamond. The planning, cutting and polishing of a collection of diamonds will be completed in partnership between Lucara (50 percent), Louis Vuitton (25 percent), and HB Company (25 percent). Five percent of all retail sales proceeds from the historic jewellery collection will be invested back into Botswana for Lucara's community-based initiatives.



Lesedi La Rona – 1,109ct

Lucara's year-end net cash balance was \$11.2 million (\$24.4 million in 2018). Lucara Botswana paid \$19.2 million in royalties and \$14.5 million in taxes to the Government of Botswana in 2019.

### 2019: ANOTHER GREAT YEAR FOR KAROWE

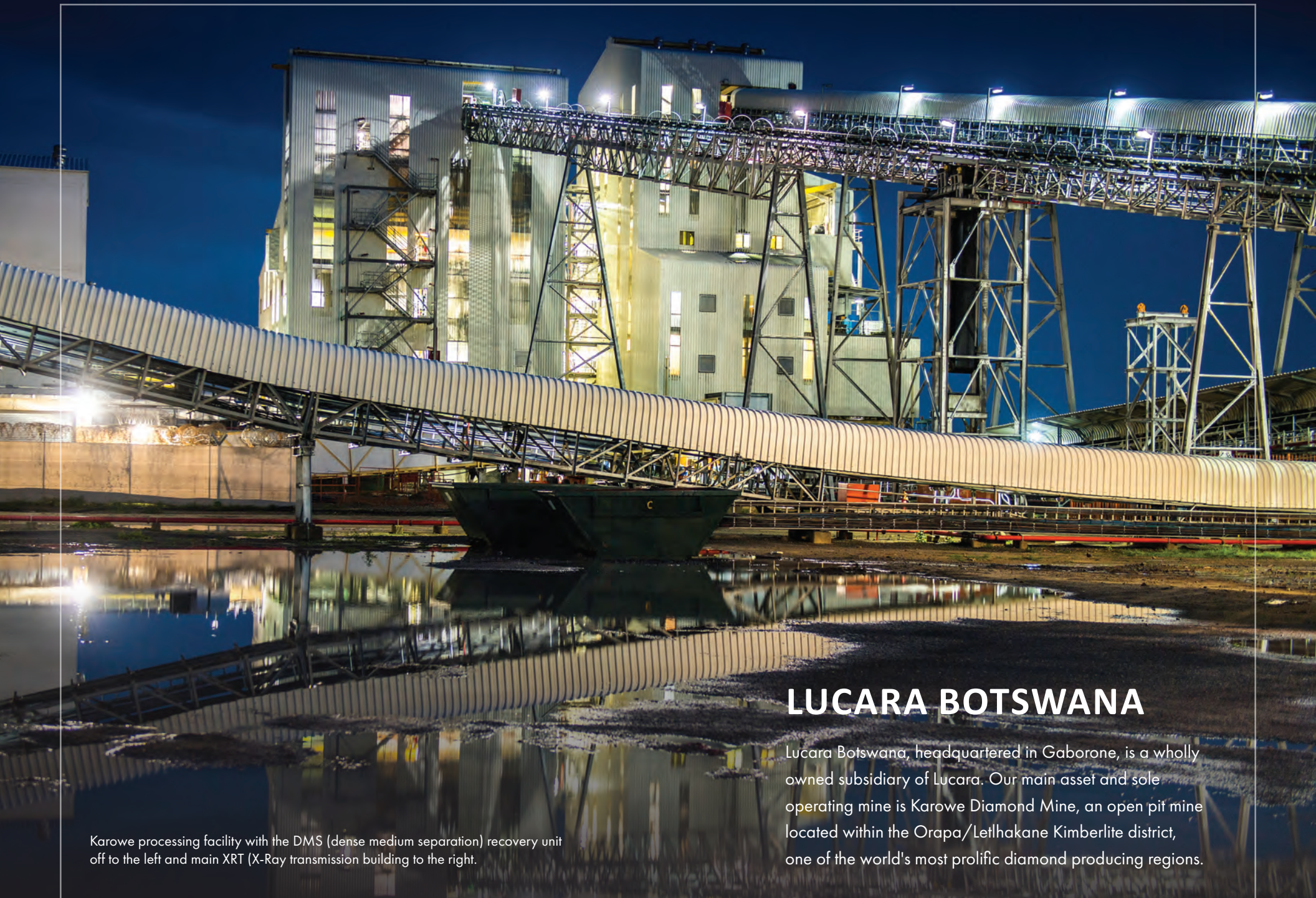
- 786 special stones recovered, totalling 24,424 carats
- 31 diamonds recovered each greater than 100 carats
- 2 stones each greater than 300 carats
- Additional plus 300 carat stone recovered from historic tailings treatment
- 11 diamonds sold for more than \$2million each
- 2 diamonds sold for more than \$5 million each

ECONOMIC PERFORMANCE (\$ million)	2017	2018	2019
<b>Direct Economic Value Generated</b>			
Revenues	220.8	176.2	192.5
<b>Economic Value Distributed (see supplemental info below)</b>			
Operating costs for ore processed	80.7	104.9 <sup>2</sup>	89.4
Capital procurement	35.4	37.7	25.2
Exploration expenditures	4.8	3.4	4.6
Sales, marketing, administrative and finance costs <sup>1</sup>	18.8	19.7	18.15
Community investments (Karowe) <sup>3</sup>	0.09	0.11	0.59
<b>Royalties and taxes to government</b>			
Payments to Government (Royalty)	22.1	17.6	19.2
Payments to Government (Corporate Tax) <sup>4</sup>	14.8	5.9	14.5
<b>Economic Value Retained</b>	<b>44.1</b>	<b>(13.1)</b>	<b>21.0</b>

### SUPPLEMENTAL ECONOMIC INFORMATION (\$ million)

Employee Compensation	8.10	10.50	14.67
Regional Procurement <sup>5</sup>	20.58	11.90	6.78
Local Procurement <sup>6</sup>	103.6	137.1	91.1
<b>SUM</b>	<b>132.3</b>	<b>159.5</b>	<b>112.5</b>

<sup>1</sup> Operating margin per carat sold is a non-IFRS measure; <sup>2</sup> 2018 value adjusted for depletion on the change of diamond inventory value (removing non cash); <sup>3</sup> Direct community investments from Lucara for the three-year period reported above without the Lundin Foundation partnership contribution included for 2017 and 2018. Beginning in 2019, all activities related to community investment became the responsibility of Lucara Botswana directly through the newly created Sustainability Team; <sup>4</sup> Lucara discloses payments to foreign governments in compliance with Canada's Extractive Sector Transparency Measures Act. In addition to corporate tax payments, we also withhold and remit payroll, non-resident and value-added taxes in the jurisdictions in which we operate. Only corporate tax payments, on a consolidated basis, are included in the table above; <sup>5</sup> Southern Africa exclusive of Botswana; <sup>6</sup> Botswana only



Karowe processing facility with the DMS (dense medium separation) recovery unit off to the left and main XRT (X-Ray transmission building) to the right.

## LUCARA BOTSWANA

Lucara Botswana, headquartered in Gaborone, is a wholly owned subsidiary of Lucara. Our main asset and sole operating mine is Karowe Diamond Mine, an open pit mine located within the Orapa/Letlhakane Kimberlite district, one of the world's most prolific diamond producing regions.





## MESSAGE FROM THE MANAGING DIRECTOR

What a year 2019 has been! This year marked our best year since production began as we broke production records with record mill throughput. This was achieved safely as we recorded 2 years LTI free.

In April we recovered the Sewelô, our record breaking 1758 carat diamond. This makes the Karowe Diamond Mine the only mine in the world to recover two stones in excess of 1000 carats. I am privileged to be the Managing Director as history was made and a proud Motswana as this put Botswana on the map.

With a total workforce of 873, which comprises nearly 99 percent Batswana, we are extremely proud of our continued contributions to the socio-economic development of Botswana. Our financial contributions included \$139.89 million, including royalties and taxes (\$33.7 million), employee compensation (\$14.67 million), national procurement (\$91.1 million) and community investment (\$0.59 million).

Our community investment highlights in 2019 included: continued support for the Letlhakane Abattoir and the Mokubilo Integrated Farm; construction of an outdoor gym and public ablutions block in Letlhakane; and, in partnership with the Sub-District Council, continued to plan the development of a school and sports complex within Letlhakane.

Safety is a core value of Lucara Botswana. In 2019 we hosted, for the first time, the Inter Mine First Aid Competition. I am pleased to share that the Karowe First Aid Team won the competition.

At the time of publishing of this report we are in lockdown in Botswana working closely with the Botswana Government to ensure that our employees, contractors, suppliers and communities remain safe and healthy during the COVID-19 pandemic. We have continued operations, implementing health and safety measures as recommended by the Government and leading health experts. I am confident that we will emerge from this experience stronger and remain committed to leading Lucara Botswana as a responsible and ethical diamond miner.

Naseem Lahri, Managing Director – Lucara Botswana

***“We were proud to once again take the naming of one of our large stones to the citizens of Botswana. This builds on the long-standing tradition of community involvement going back to the naming of the mine and some of its most significant diamonds. The names that have been put forward and selected represent the spirit, culture and pride of Botswana.”***

*Naseem Lahri, Managing Director – Lucara Botswana*



## MESSAGE FROM THE GENERAL MANAGER

In 2019, we continued our commitment to zero harm. As a mine, we have taken impactful strides towards developing and implementing a resilient state in the safety path. The maturity of our people in dealing with unsafe acts and conditions improved. This was very evident in our collective response to the two lost time injuries that we had during the last half of the year; these regrettable incidents were followed by an even superior and a more proactive performance on all safety fronts.

In 2019, we further demonstrated our resilience and excellence on safety as we were crowned the winners of the Botswana Chamber of Mines First Aid Competition.

Our strong operational performance was visible across the value chain. This resulted in improved contractor management and performance, efficiency and productivity improvement. In fact, the processing plant milled a record 2,804,517 tonnes. Our state of the art processing plant recovered a total of 433,060 carats (inclusive of 29,990 carats from the previously milled material), including 1,030 Specials (single diamonds weighing in excess

of 10.8 carats) in 2019 of which 244 specials were from the previously milled material.

In 2019, we continued with training aimed at empowering the executive members of the union of the Botswana Mine Workers Union and Karowe Management Representatives to enhance our working relationships. There was Labour Law Training and Mutual Gain Negotiation Skills for Collective Bargaining and labour law Induction by the District labour office. In 2019 the parties engaged for the first time on wages negotiation and the exercise was successfully completed. The parties also managed to secure a two year wage agreement, and successfully signed a memorandum of agreement. The parties also agreed on a performance management policy and a calibration procedure.

We maintained our structured community engagement, contributed to and participated in numerous community events, such as traditional Kgotla meetings, and amicably resolved the one grievance recorded in 2018 (none were recorded in 2019). Kgotla meetings represent a key tool for us to engage with our communities. On a quarterly basis, we visit six of the 18 villages within the Sub-District, and visit the remaining 12 on a bi-annual basis, to attend and participate in the village Kgotla meetings. During these meetings, we present an update of our current and planned activities, our performance and achievements, and provide our stakeholders the opportunity to ask questions, seek clarifications and raise concerns.

In 2019 we strengthened our sustainability team and expertise in order to optimise our capacity to monitor and support existing projects like Mokubilo Farm, and identify others. This department is composed of the Sustainability Coordinator, Community Investment Officer, Community Liaison Officer and two Environmental Officers.

Our community investment program includes the publicly owned Letlhakane Abattoir and the Mokubilo farming project. We have in the past supported a feasibility study reviewing the privatisation of the abattoir to help ensure sustainable operations and long-term benefits for the community. A new business model of running the abattoir was adopted after consultation with Local Enterprise Authority (LEA). The model is an all inclusive sustainable entity that serves the needs and benefits of the community. In this model there will be sole Management of the abattoir by a trust reporting to the Advisory Board of Directors, who will be advised by the Technical Advisory Board consisting of various stakeholders.

As part of our Karowe Villages Initiative program, we conducted a feasibility study, invested in and continued to support the Mokubilo Co-operative Society Farm. Our support emerged in response to the Mokubilo village's request to address malnutrition, provide affordable and locally available vegetables and protein, as well as to generate employment opportunities. In 2019, we helped strengthen the capacity of the farm board and management and supplied the cooperative with a vehicle to enable distribution of their farm products to customers. After meeting the nutritional needs of the village school, excess produce is distributed for local sale. In early 2019, the farm's first harvest and sales were achieved.

We continued to engage with Boteti-Sub District Council on the development of the new multi-purpose sports complex and school to help to address the issue of sports development and alleviate the shortage of schools in Letlhakane and the surrounding villages. The project includes a children's day care centre and primary school, with the option to include a Junior and Senior Secondary School in future years.

Johane Mchive, General Manager – Karowe Diamond Mine



In 2019, Lucara uncovered "Sewelô" (meaning "rare find"), an unbroken 1,758 carat near gem quality diamond

### **BOTSWANA & DIAMONDS**

Since independence in 1966, Botswana has evolved from one of the poorest African countries with a population of around 600,000, to become economically stable and successful with 2.25 million inhabitants. Botswana has been one of the world's fastest growing economies, averaging 5 percent per annum over the past decade. However, its reliance on commodities renders it vulnerable to international market fluctuations. After a strong growth of 4.5 percent in 2018, growth slowed to 3.5 percent in 2019, reflecting the effects of weakened global demand for diamonds alongside severe droughts affecting the region. The global slowdown in demand and increased trade restrictions in light of the COVID-19 (coronavirus) pandemic is expected to have a profound impact on Botswana's economy, particularly on the diamond industry and tourism. The diamond industry remains the single largest contributor to government revenues and accounts for 80 percent of the country's export earnings.



Workers assembling for Safety Stand Down talk at the Karowe Mine

## GOVERNANCE & ASSURANCE

In 2019, we focused our efforts to further embed good corporate governance and risk management principles into our operations. We established a Governance and Assurance Department, adopted an improved Enterprise Risk Management Framework and Policy, and further developed our strategic and operations risk registers using a single platform. Related training was also provided to our business leaders and senior managers, employees and main contractors.

Additional training is planned for designated Risk Champions to support them in identifying and managing risks within our enhanced governance and risk framework. Our internal capacity building will also cover the Lucara Diamond Control Standards, comprising five key areas, including Leadership & Governance and Process Integrity.

During 2019, we established a new Sustainability Department. This department is composed of a Sustainability Coordinator, Social Investment Officer, Community Liaison Officer, two Environmental Officers and an Administrative Assistant.

## BUSINESS CONTINUITY & COVID-19 RESPONSE

Lucara has developed strong adaptive capabilities by applying our business continuity framework to protect our ability to deliver critical services following a disruptive event. The objective is to build high-level resilience in all departmental services and sites when facing major adverse events.

In early 2020, we rapidly implemented our crisis management strategy, to protect the health and well-being of employees and contractors. The Karowe Diamond Mine remained operational during the Botswana lockdown. We implemented measures that aligned with government-issued guidelines. These measures include travel restrictions, reduced on-site staffing (some employees were able to work remotely from home), and increased social distancing.

As part of our COVID-19 response, Lucara contributed over 6.5 million Pula (\$540,000) toward a range of relief efforts, which included a contribution to the Government of Botswana's COVID-19 Relief Fund, the establishment of a quarantine and testing facility for the Boteti Region, distribution of food hampers, hand sanitizer, masks and gloves, and the refurbishment and restocking of Gender-Based Violence Shelters in Gaborone and Letlhakane.

## POLICIES & BUSINESS CONTINUITY

Lucara Botswana has developed relevant policies and charters which are aligned with Lucara Diamond Corp. The complete versions of the following charters and policies, which were updated in February 2019, are available at [www.lucaradiamond.com](http://www.lucaradiamond.com).

### Corporate Responsibility Charter

Through our CR Charter Lucara Botswana will initiate and promote an on-going dialogue with a broad range of stakeholders across our operation, maintained in a spirit of transparency and good faith. Lucara Botswana recognizes that effective stakeholder engagement can create value and mitigate risk for both the company and our stakeholders. We acknowledge that mining is, by definition, finite and therefore we will work to provide lasting, sustainable benefits in the communities where we live and work. We are committed to:

- Work consultatively with community partners to ensure that our support matches their priorities;
- Ensure that our support is focused on sustainable community development rather than dependency;
- Impact positively on the quality of life of members of the local community;
- Seek opportunities to maximize employment and procurement for local communities through the provision of suitable training opportunities and resources; and
- Conduct our activities to meet or exceed accepted standards in the protection and promotion of human rights.



Processing conveyor belt and billboard with displaying Lucara's commitment to a strong safety culture

### Occupational Health and Safety Policy

Lucara Botswana is committed to creating a healthy and safe working environment for all employees, contractors and visitors. This means that we will actively train, educate and work with all employees, contractors and visitors to avoid conditions that may result in injuries. We endeavour to:

- Promote a healthy and safe workplace for our employees, contractors and visitors.
- Integrate safety and health into all our business processes and activities
- Provide the necessary resources (training, equipment, human and financial) to achieve best occupational health and safety standards in the industry.
- Identify, assess and manage hazards and risks to all individuals at the work sites.
- Meet or exceed applicable Occupational Health and Safety (OHS) standards.
- Implement safety and health management systems, with a focus on continual improvement.
- Effectively communicate this OHS policy to all employees, contractors, stakeholders as well as the public.



Diamond processing plants (light colored buildings) in front of coarse tailings storage area

### **Environmental Policy**

Lucara Botswana is committed to sustainable development, which requires that we minimize the short- and long-term adverse impacts of our activities on the environment. We will achieve this through the effective implementation of our approved Environmental Management Plan. This policy applies to all employees, contractors and other parties who may come into contact with our operations.

Lucara Botswana promotes environmental education and awareness in our operations and our local communities. We expect our employees, contractors and visitors to behave and conduct themselves in ways that protect the environment and actively seek to mitigate potential adverse impacts on the environment, through effective and efficient waste management, water use, energy use, biodiversity conservation practices and implementation of the closure plan.

### **Membership and Awards**

Lucara Botswana continues to be an active member of the Botswana Chamber of Mines. Building on our success from 2018, Karowe Diamond Mine’s team won the 2019 Inter-mine First Aid Competition, which was hosted by Karowe Diamond Mine.

## OPERATIONS

Lucara Botswana's sole asset is the Karowe Diamond Mine, an open pit operation commissioned in 2012. Currently, Karowe's open pit is planned to cease operations in 2025. A feasibility study published in November 2019 outlines positive economic opportunities for an underground mine development which could extend Karowe's life of mine to at least 2040.

### STRONG OPERATIONAL PERFORMANCE IN 2019

- Total tonnes mined of 9.8 million (guidance: 9.5 million to 10.9 million)
- Ore and waste mined were 3.3 million tonnes and 6.5 million tonnes respectively
- Ore processed totalled 2.8 million tonnes (guidance: 2.5 million to 2.8 million tonnes)
- 433,060 total carats recovered, including 29,990 carats recovered from previously milled material (guidance: 400,000 to 425,000 carats)

### Operational Activities

Karowe is one of four mines within 20 kilometres of Letlhakane, which has a population of approximately 29,000. This area is one of the world's most prolific diamond producing areas, and includes the Orapa Mine, one of the largest diamond mines in the world.



Conveying coarse kimberlite for additional size reduction

Karowe lies in a terrain of flat lying sandy savannah supporting vegetation of trees, shrubs and grasses, which has been modified by livestock grazing and farming. The Boteti region is characterized by a semi-arid to arid climate with hot, wet summers and cold dry winters, and an average rainfall of 370 millimetres. There are no permanent surface water bodies in the proximity of the mine. The mine's water requirements are met through its open pit dewatering.

The Karowe property is accessed via a 15 kilometre all-weather gravel and sand road from the tarred road linking Letlhakane to Orapa. Karowe's electric power supply is provided via Botswana Power Corporation's national grid.



Karowe Mine processing plant

## Mining

Supported by our mining and other contractors, Karowe's targets for ore, waste and related costs were reached and even exceeded in some areas, such as reduced fuel consumption and costs due to lower waste rock removal requirements compared to previously anticipated volumes. The mining department achieved 365 days with zero harm, trialled double benching as a possible new mining method, and improved the efficiency of dewatering of the open pit.

Resource management initiatives implemented have demonstrated improvements in efficiency. For example, a new monitoring system and additional training for drivers, has improved vehicles maintenance and reliability, and reduced fuel consumption. In 2020, we plan to upgrade and digitize our fuel management system to further improve monitoring and management of our fuel consumption.

## Processing

We continue our drive for operational efficiency and reliability to achieve minimal damage and breakage of diamonds. Supported by our processing contractor, adopting a strengthened preventative maintenance approach, and applying a 'stop and fix' policy, we achieved a record throughput of processed ore of 2.8 million tonnes and, at the same time, a strong safety record.

Improving compliance with quality assurance and control through continuous tracking of lead process measures helped further improve our process efficiency and, in turn, improved overall revenue performance. We continued with the auditing of current process plant tailings with the innovative audit machines installed in 2018. In 2019, after being fully trained, we took over the running of the XRT (X-Ray Technology) machines from our contractor. In 2020, we plan to install new stainless-steel XRT machines to mitigate against corrosion and increase throughput.



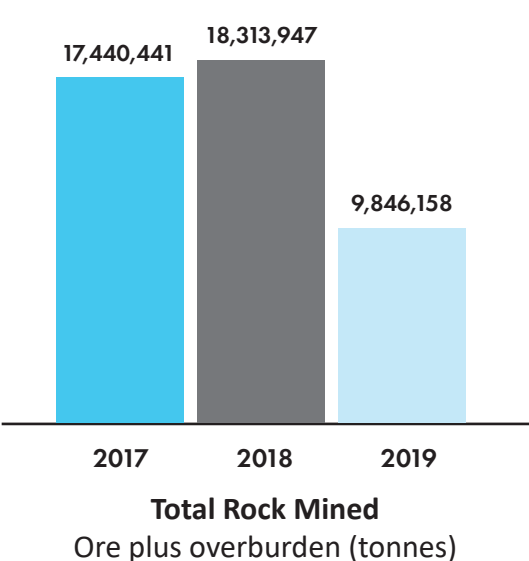
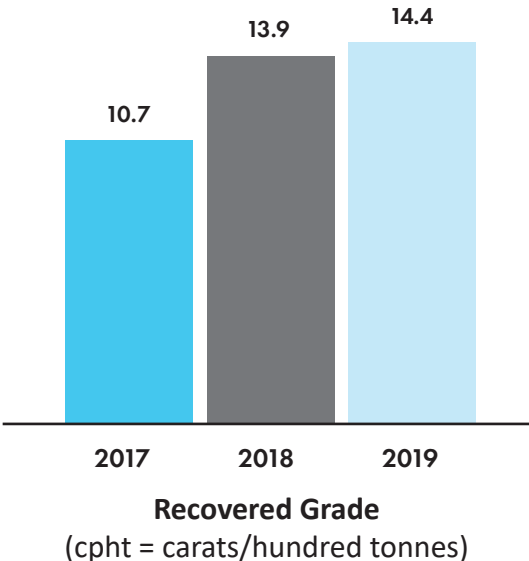
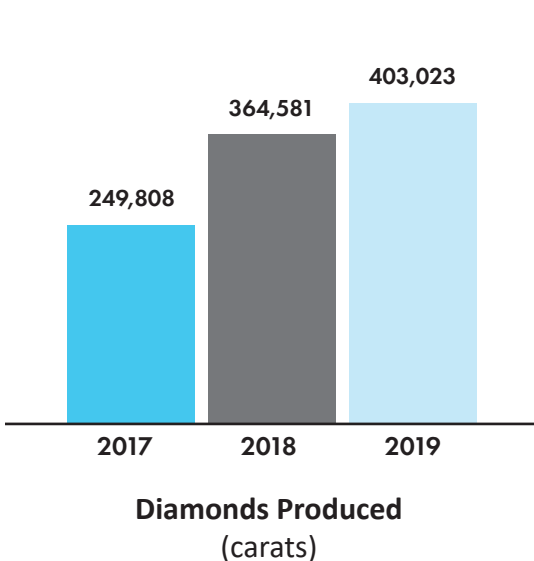
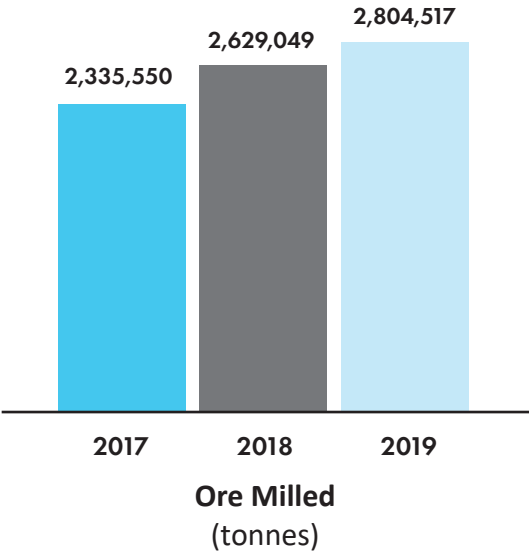
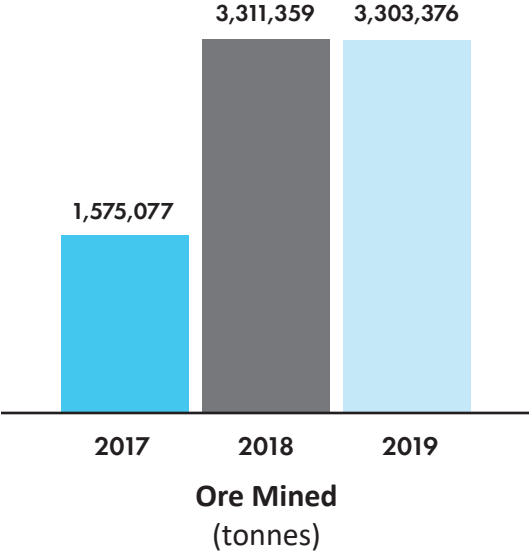
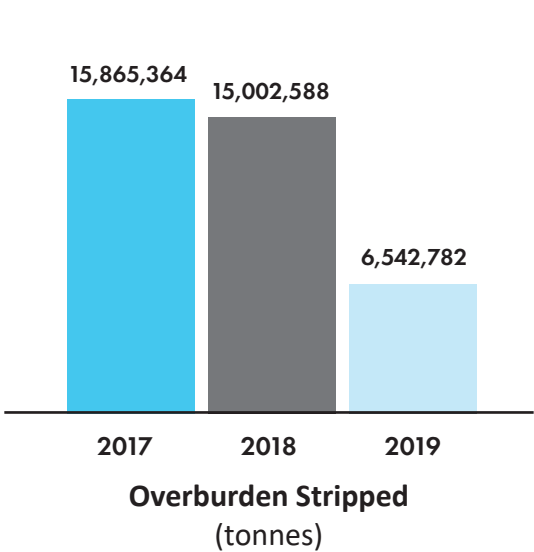
9 INDUSTRY INNOVATION AND INFRASTRUCTURE

Early adoption of technological innovation has been a key success factor for our diamond recovery at Karowe. For example, ours was the first diamond mine to implement sensor-based bulk sorting for primary diamond recovery from sized run-of-mine material. This enables early detection and recovery of large diamonds, reducing risk of breakage during the milling process.



# PRODUCTION STATISTICS

In 2019, ore mined and overburden stripped was 3.3 million tonnes (target of 2.7 million) and 6.5 million tonnes (target of 7.6 million), respectively. Tonnage milled was 2.8 million tonnes, exceeding our target range of 2.4 to 2.6 million tonnes. Diamond production totalled 403,023 carats (target of 393,661 carats), our highest since 2015.



## Waste Rock and Tailings Facility

### Waste Rock

The open cast mining of our deposit requires the removal of overburden and waste rock to provide access to the diamond-bearing kimberlite ore. The volume of waste rock to be removed varies year-to-year depending on the geology and progress of ore mining. We removed significantly less waste rock volumes in 2019 compared to 2018.

### Tailings Management

After crushing and milling of the ore, to allow extraction of diamonds, the remaining coarse material is deposited via conveyors into an engineered storage facility. The finer tailings materials are pumped as a slurry to the tailings storage facility (TSF). This structure consists of four compartments or paddocks. Each of the paddocks is filled according to a scheduled sequence. Water collected in the TSF is collected so it can be re-used in the processing plant. This water removal further improves the stability of the TSF. The TSF structure is also raised from time to time to provide additional storage space.

WASTE ROCK & TAILINGS (tonnes)	2017	2018	2019
Slimes	803,143	920,783	1,121,795
Tailings	1,472,398	1,690,416	1,663,542
Recovered tailings	13,714	10,466	8,716



Aerial view of tailings (black color) and slimes (square containment)

### TSF Safety

The surrounding topography of the mine site and its TSF is flat, with no permanent surface water in its vicinity. The nearest communities are four kilometres away from the mine site. Guidelines for the inspections of all storage facilities in Botswana are stipulated by the Mines and Quarries Act. In line with these requirements, we conduct daily inspections using qualified employees. In addition, annual inspections are conducted by a legally appointed consultant who is recognised by government officials. Statutory reports are provided to the relevant government department based on findings from both internal and external technical experts. There were no reportable incidents at our TSF in 2019. The risks associated with TSF failure at the Karowe Diamond Mine are considered low.



Geologists examining drilled core

## DEVELOPMENT & EXPLORATION

### Underground Mine Feasibility

In 2018, Lucara embarked on a major technical program to support a feasibility study for a potential underground operation at Karowe, with the aim of extending mine-life from 2025 to 2040. New drilling and open pit recoveries conducted during the feasibility study, which was released in November 2019, identified a much larger economic opportunity at depth.

Lucara's Board approved a program for the proposed underground mine, which will include detailed engineering designs, early surface works and procurement of long lead time equipment. Our Environmental Management, Closure and Social Engagement Plans are being updated to include proposed underground mining activities. These updated plans will be finalised and approved in 2020.

### Prospecting and Exploration

Following the completion of our prospecting work, Lucara has relinquished all prospecting licenses in Botswana. Instead, we continued our collaboration with Sunbird Exploration. Using an innovative and proprietary unmanned aerial vehicle magnetometer survey platform, we continue our search for new kimberlites over 35 licenses covering 12,813 km<sup>2</sup> in Botswana. Data acquisition during 2019 covered over 54,000 line-km of high-resolution magnetic surveys. A total of 111 selected targets were drill tested. No kimberlites of economic interest were discovered in 2019, although work continues into 2020 on other targets.

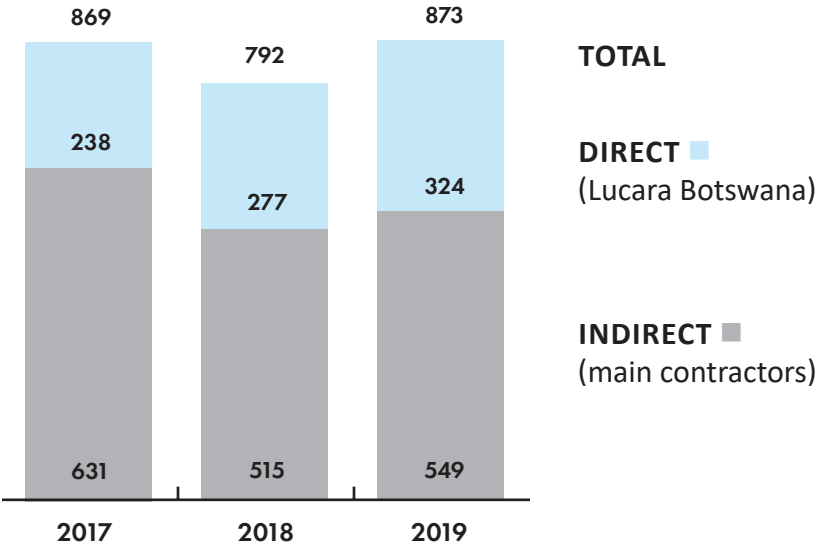
## OUR PEOPLE

Maintaining and growing local talent is one of our key focal areas. Local employment and retention are fundamental components of our success as a business. We strive to be an employer of choice and create a working environment that allows our employees to be content, safe, healthy, and proud to work for Lucara Botswana.

**99%** Botswana nationals in total workforce

**28%** Lucara Botswana employees are women

## WORKFORCE



Our people working in the mine pit

### National Workforce

In Botswana, our total workforce, including our main mining and processing contractors, was equal to 873 people by the end of 2019. This represents a 10 percent increase from 2018. Botswana nationals comprise 99 percent of our total workforce, an increase of one percent from the previous year. The number of directly employed workers (for Lucara Botswana) increased by 6.6 percent to a total of 324.

### Low Staff Turnover

The staff turnover for 2019 was three percent as compared to four percent in 2018. This remains below our threshold of five percent.

## Diversity and Gender

We promote equal opportunities throughout the recruitment process of our labour force. While the proportion of women in the mining sector continues to be generally low, we have one of the highest ratios of women in mining in southern Africa. The total number of women among our direct employees has increased to 92 in 2019 (from 80 in 2018).

The proportion of women increased from 16 percent in 2018 to 18 percent in 2019, including contractors. We are an equal opportunity employer with a number of women in top management roles. In addition, to the CEO of Lucara, and the MD and CFO of Lucara Botswana, there are now 11 women in leadership positions in Lucara Botswana, representing an increase by four since 2018.



**Naseem Lahri**  
Managing Director



**Boitumelo Maoketsa**  
Chief Finance Officer



**Amogelang Bogacu**  
Human Resources Superintendent,  
Organizational Development



**Nametsegang Poloko-Nthake**  
Finance Manager,  
Compliance & Reporting



**Mma Jacob**  
Acting Finance Manager



**Tebalebo Ramothogobeng**  
Process Engineer, Production



**Kesego Kereemang**  
Safety & Occupational  
Health Coordinator



**Constance Rakesiilwe**  
Human Resources Superintendent,  
IR & Services



**Florence Kumbula**  
Financial Accountant



**Tiny Tape**  
Grade Control Geologist



**Letsebeng Selawe**  
Sustainability Coordinator

## Performance Management

Our focus for 2019 has been on employee engagement. We offer localisation and succession plans, when appropriate. All employees receive annual career development reviews. Exit interviews and occasional employee surveys support our efforts to better understand and improve employee satisfaction and staff retention.

### CORE VALUES FOR OUR EMPLOYEES

- **Integrity**  
To act in an ethical, respectable and principled manner to uphold high moral ground at all times.
- **Fairness**  
To deal with all our stakeholders in a manner that is procedurally equitable, taking cognisance of issues of natural justice and empathy.
- **Accountability**  
To take total ownership of all actions within your sphere of influence to deliver desired results.
- **Tenacity**  
To be innovative and not give up in your drive to achieve your objectives.
- **Communication**  
To be responsive and proactively keep all stakeholders informed at all times.



We recruited a new Sustainability Coordinator and Community Investment Officer in 2019

During the reporting year, our training and development opportunities included providing 44 courses and trainings to 328 personnel. Financial literacy training is available to all interested employees. We continue to work towards gaining accreditation for our training program.

Our employee handbook provides guidance to employees and details of our approach. The handbook covers issues such as disciplinary code, statutory labour requirements, labour case law, good labour practice, and our tiered grievance procedure. Our employees with a permanent contract receive a housing allowance, medical aid subsidy, group life insurance and statutory workers compensation. We have in place a pension scheme, and employees are paid a gratuity (a form of pension) every three years. Our employees benefit from 12 national holidays annually, in addition to statutory, maternity and parental leave.

In 2020, we will be introducing a talent management and succession planning strategy and system, which will be designed to meet our employees' professional growth needs and support our employee retention goals.

## Labour Engagement

Throughout our business practices, we uphold the freedom of association, the elimination of forced or compulsory labour, the effective abolition of child labour, and the elimination of discrimination in respect of employment and occupation.

With our assistance, the Lucara Branch of the Botswana Mine Workers' Union was established in 2018. By the end of 2019, 65 percent (179) of our direct employees had joined the Union, an increase from 130 in 2018. Our main contractors have formed their own union branches to represent their workforce. We aim to maintain good workplace relationships and an open-door policy where employees can feel free to raise issues and discuss them with management.

In 2019, we continued our regular consultation and negotiation meetings, and held a workshop to further strengthen our relationship with the Union. Training and skills development opportunities were provided for Union members on basic labour laws, negotiating skills, company policies, and details of the Memorandum of Agreement. In addition, we provided the Union with an office in Letlhakane, support attendance at conferences, and time off to attend meetings and other union-related activities.

Our operations did not experience any strikes or lockouts during the reporting period. One dispute, raised by Trollope Mine Workers Union, was resolved quickly and amicably.



Staff attending Safety Stand Down talk

## Labour Grievance

We maintain a formal grievance procedure. Employees are encouraged to first approach their line manager or human resources representative; if concerns remain unresolved the grievance is escalated up to the General Manager or Managing Director. Union members may also pursue their grievances through their union representative. In 2019, we did not register any complaints of discrimination or other types of violations of labour rights. Two minor formal employee grievances were resolved during the first stage of the grievance process amicably and in a timely manner.



8 DECENT WORK AND ECONOMIC GROWTH

With Botswana nationals representing 99 percent of our total workforce, including a majority of our senior management positions, we provide high quality jobs to Botswana nationals.

Our local procurement and spending by our workers contributes indirectly to local economic development.

## SUPPLY CHAIN

Rough diamonds are at the start of the supply chain of the diamond trading, polishing and jewellery sector. Our adherence to the Kimberley Process and our certification under the Responsible Jewellery Council schemes ensure and demonstrate provenance, tracking, ethical trade and responsible mining practices associated with the production of our rough diamonds.

Our procurement objectives include sourcing materials and services from within Botswana region, thereby generating local and national socio-economic benefits. In 2019, 93 percent of goods and services (\$91.1 million) for Lucara Botswana were sourced locally from Botswana (92 percent in 2018).

Mining (Trollope Botswana Pty), ore processing (Lazenby Holdings), and drilling contractors (Marung Development Services) represent our most significant service providers. They also contribute 63 percent of our overall workforce. They purchase diverse equipment and supplies to provide their services, ranging from mining trucks to safety equipment.

In addition to utilizing government security services and our own security personnel, we engage a contractor to assist with security during diamond transport from the Karowe mine to our dedicated sorting and marketing offices within the Diamond Technology Park in Gaborone, the capital of Botswana.



Sorting rough diamonds

We ensure our contractors are as committed to sustainability as we are, by sharing on our mission, values and governance structures and commitments. On a biannual basis, we audit our contractors to review their compliance under our codes, charters and policies. Contractors undergo the same training and orientation as our employees. These audits involve, for example, labour and workshop inspections. We have engaged our newly formed Governance and Assurance team to oversee the process of this audit. We have conducted dedicated workshops to share case studies and raise awareness of the applicable legislation and other requirements.



## HEALTH, SAFETY & WELLNESS

### Safety Culture

Health and Safety is one of our core values, and part of our working culture. We continue to maintain zero fatalities since the commissioning of the mine in 2012, and we celebrated 24 months with zero lost time injuries (LTIs) at the Karowe Diamond Mines in July 2019.

Our main contractors are fully integrated into our health and safety programs and culture, in addition to having their own initiatives, which are aligned with our policies and procedures. Botswana Mine Workers Union is a member of our Safety, Health and Environment committee.

### Behavioural-Based Safety

We implemented behaviour-based safety programs, which are driven by an exemplified list of "Cardinal Sins" or actions that people working on our mines should avoid. This information is posted in all workplaces to maintain constant awareness and to promote responsible behaviour in conducting all operations.

In 2019, we continued our new health and safety awareness program called "5 Steps to Zero Harm" which we communicate through training, presentations and posters in the workplace, including at the mine pit. All employees are issued with a small "Safety in Your Pocket" handbook to keep with them for easy reference with regards to 25 key health, safety and environmental topics.



Karowe's team placed 1st in the 2019 Inter-Mine First Aid Competition which was hosted by Lucara Botswana at the Karowe Diamond Mine.

We encourage all employees to report all unsafe or potentially unsafe conditions and near misses. This helps us reduce the likelihood of their repetition. We have implemented pre-task risk assessments and maintain a "Stop & Fix" policy to encourage immediate action whenever risks are identified. Every employee is required to report at least one "Stop & Fix" issue each week.

Road safety, on and off site, remains an important focus, also benefitting our local communities. We have installed vehicle speed monitoring systems at strategic locations, to ensure compliance with safety-oriented speed limits, and created a mandatory brake-testing facility for vehicles to ensure good working condition of this critical safety features before vehicles are allowed to enter the mine pit area.

### CARDINAL SINS

- Reckless driving
- Overtaking on haul road
- Engaging in physical fighting
- Rendering safety devices inoperable
- Concealing an incident or injury on duty
- Operating plant without authorization or failing to complete pre-start checklist
- Working on equipment/machinery wilfully without lockout or isolation
- Coming to work under the influence of intoxicating substances

### Tracking Near Misses

We apply a continuous improvement approach to Health, Safety and Wellness. Our reporting of near misses remains significantly high. We view this as a reflection of our risk prevention policy of increased vigilance and reporting, and as a key driver to improving our health and safety performance.

We periodically hold a "Safety Stand Down". This means that we pause regular work and assemble all workers to raise health and safety awareness, and celebrate and award good practices.

### Training and Communication

All employees and contractors receive safety training at commencement of employment and regularly throughout their career. All are expected to maintain safe work sites through involvement in health and safety committee meetings, and by conducting safety inspections. During the transition, in 2018, to a new mining contractor, Trollope, we shared all health and safety experiences from the previous contractor.

We actively educate and work with all employees and contractors to avoid conditions that may result in injuries. In accordance with our Occupational Health and Safety Policy, we continue to integrate health and safety into all our business processes and activities. All levels of management, supervisors and contractors have the responsibility to ensure the safety of all employees and workers under their direction, and to ensure they are properly trained and equipped.

In support of our rules, we provide regular training and communication programs to ensure all employees and contractors remain vigilant and are compliant with the health and safety requirements in every aspect of their daily activities. Our health and safety performance is monitored and regularly reported to senior management, executive leadership and relevant Board committees.



High health and safety standards and performance of our workers and contractors are our priority. In addition, our focus on good health and well-being includes regular health assessments for all workers, and extending health and wellbeing to their families and local communities through sports events and health screening programs.

## Occupational Health and Safety

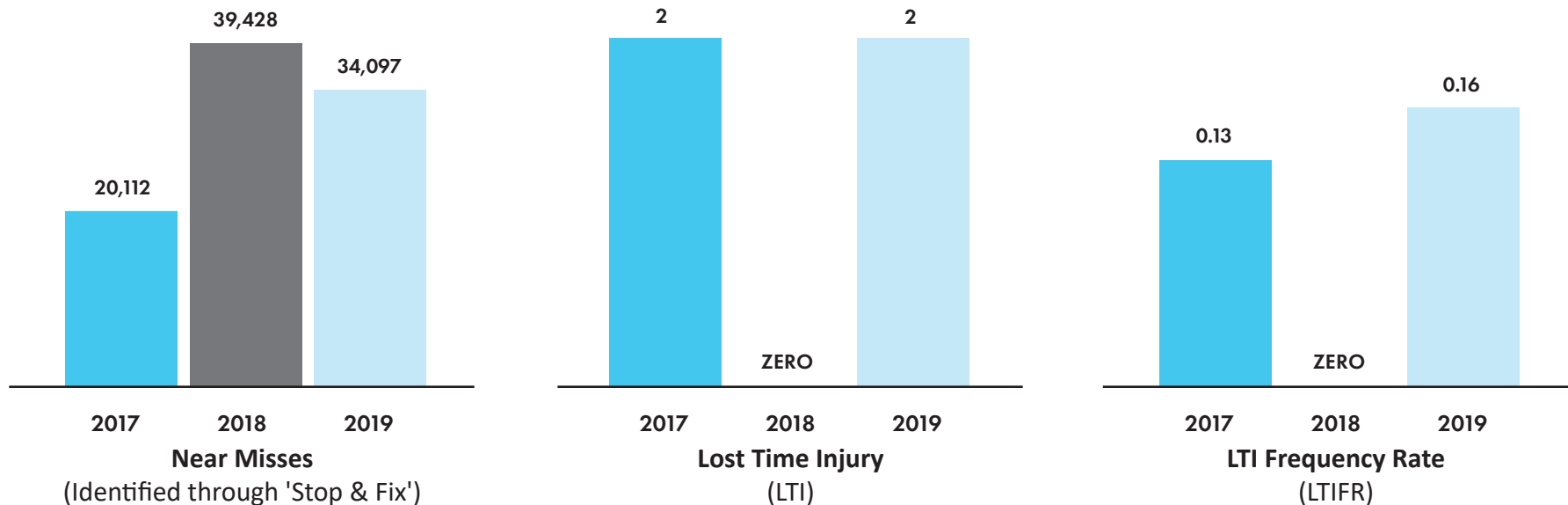
During 2019, we undertook an internal audit against OHSAS 18001. We achieved a score of 91 percent (exceeding our target of 80 percent) and identified opportunities for improvements. We continued to transition from the OHSAS 18001 to the more recent ISO 45001 management system. This transition will help shift our focus from controlling hazards to a more risk-based thinking, and a more proactive, flexible and preventative approach based on remedying a broader range of risks. As part of this process, we are developing new procedures and processes aligned with the new system. One key change we have adopted is that employees are more involved and there is greater ownership of health and safety issues as individuals.

We rolled out our Fatigue Management Plan in 2019. The plan focuses on job rotation, shift patterns, regular breaks, and fatigue awareness. Managers were trained on how to recognise fatigue in workers and how to intervene. Shift patterns were aligned with this new plan. Family members of employees were invited to the mine to understand the work environment and allow them to also understand the key elements of fatigue management.

In 2019, we recruited a fire officer to join our Health and Safety Team. This will allow us to upgrade our licence to accommodate international flights at our airstrip adjacent to the Karowe Mine.

Our key health and safety performance indicators are presented in this section, with additional statistics provided as part of the GRI Index (Appendix 2) which can be accessed at [www.lucaradiamond.com](http://www.lucaradiamond.com).

## HEALTH & SAFETY STATISTICS





Road safety event with local communities

## Community Health and Safety

Our community's health and safety is important to us. In 2019, we continued to carry out our activities on water monitoring of the community owned or private boreholes to ensure that our operations are not impacting on local water sources, both in terms of quality and quantity. We also held a road safety campaign for workers and community members on rules of the road, safe driving, how to use the road as pedestrians, and the responsibility of taking care of livestock to avoid livestock straying on to the mine access roads. Our routine stakeholder engagement mechanisms enable communities to raise any community health concerns.

## Health and Wellness

We promote a culture of health and wellbeing among our employees and workers to prevent workplace injuries and occupational diseases. In addition, we address topics such as HIV/AIDS, tuberculosis, obesity, diabetes, and hypertension.

We maintain an onsite health care unit, which is permanently staffed by a nurse. This unit can provide an emergency response service at the mine site. It also provides consultation, dispenses medicines, and makes referrals to doctors, as appropriate. In addition, we employ two private medical doctors who visit the mine site twice a week to provide access for anyone who wishes to consult with them. Urgent referrals can then be sent to Orapa or Letlhakane hospitals.

We conduct medical examinations of all employees and workers, including contractors, at the start and termination of employment. Direct employees also receive a monthly health check-up, while main contractors receive annual ones. We have not recorded any noise induced hearing loss or other occupational disease cases in 2019.

## Wellbeing

We organize periodic wellness events to promote sport and healthy lifestyles amongst our workers, their families and communities. In June 2019, we held the annual Karowe Mine Cycling Challenge, sponsor the regional football league, and host wellness days at the mine with sporting activities and presentations.

## Security and Loss Control

Our Governance and Assurance Department, which was formed in 2019, plays a key role in the protection of our people, assets and product. We also invested in our abilities to use business and artificial intelligence to proactively identify areas of risk and mitigate them.

Our Security Team, including former police force members with training in law and Human Rights, continues its efforts focused on awareness raising and communication. This includes collaboration with the Sustainability Department to formulate a dedicated email group called SASSY, an acronym for “Serious About Safety and Security for You”. This is an email that is sent out to staff and contractors to inform them about security and sustainability related matters.

### ALIGNING SECURITY WITH VPSHR

We have aligned our security program with the Voluntary Principles on Security and Human Rights, the United Nations Guiding Principles on Business and Human Rights. Our induction and training materials continue to emphasize our commitment to respectful engagement and international Human Rights.



Reviewing geological structures in the open mine pit

Additionally, a mine-wide, internal security awareness program was held in November 2019. This involved the Botswana Police Services, Wildlife, Security Service Providers, mining contractors and internal stakeholders to train them on security matters. Furthermore, security pledge posters (“I am serious about Security”) were signed by all those in attendance on the day to show their commitment and buy-in to the program.

In 2019, we continued the training initiated during the previous year so that 100 percent of the security team directly employed by Lucara Botswana are now trained on the Voluntary Principles on Security and Human Rights.

## PARTNERSHIPS & ENGAGEMENT

Our core values guide our engagements and partnerships. We are committed to respecting and listening to our people, our communities and our local government, to delivering on our promises and commitments, and to communicating with openness and honesty. We seek to create and magnify positive economic and social benefits through local stakeholder collaboration.

Our newly expanded sustainability team operates from our offices in Letlhakane. This office serves as the main welcoming point for anyone wishing to learn more about our activities and employment opportunities, or to raise questions or concerns. We regularly attend traditional Kgotla meetings, described further below, and other community events to proactively engage with our community stakeholders.

An annual workshop is held with the leadership of 18 villages in the Boteti Sub-district, which hosts Karowe. This allows us to learn about their expectations and concerns, be accountable about our operations and social investments, and identify opportunities for improvement. Examples of such opportunities identified, and actions taken, include a redirection of our micro-lending program from supporting private entrepreneurs towards community-trust owned beneficiaries, as detailed further below.

### Kgotla Meetings

On a rotating basis, each quarter, we visit six of the 18 villages across the surrounding district to participate in the village Kgotla, a traditional forum for community meetings.



Attending local community meetings near the Karowe Mine

We conduct annual workshops with the leadership of these villages to learn about their expectations and concerns, be accountable for our operations and social investments, and identify opportunities for improvement. In response to such engagements, we developed and expect to expand the Karowe Village Initiative.

We also bring the knowledge and culture of our safety and wellness programs to Kgotla meetings to stress their relevance to all aspects of daily life, not just work.

### Mine Site Visits

We welcome and provide mine site visits to appointed government officials interested in learning more about our operations. In 2019, we had the opportunity to host Councillors and the Chiefs and Village Development Committee Chairpersons.



Dignitaries and community leaders visiting the Karowe Mine

## Grievance Mechanism

We maintain a formalized grievance mechanism to receive, log, acknowledge, address and monitor grievances which may be associated with our operations. This process was updated and digitized in 2019. No grievances were logged in 2019. This is an indication that our proactive approach and responsiveness enable us to address concerns before they escalate to formal grievance.

### REGISTERED GRIEVANCES AND OUTCOMES

Year	Grievances	Comments and Response
2017	1	Sanding of a livestock farmer's shallow well was determined to be unrelated to Karowe mine. Resetting pump resolved the problem.
2018	1	A farmer (the same as in 2017) reported his well was not pumping water. We visited and identified this was due to a poor power connection to his pump. The issue was amicably resolved.
2019	0	Further strengthened engagement capacity with new Sustainability Department .

## Key Partnerships

We continue to build strong and long-lasting partnerships. During the reporting period, we continued partnering with our local community, focusing on the Mokubilo Farm project and conducting feasibility studies to identify new opportunities.

Working with the Letlhakane Sub-District Council, we continued our support of the publicly owned Letlhakane Abattoir, and the development of the Sports Complex and School in Letlhakane village. In 2019 we contributed to the construction of a state-of-the-art public outdoor gym and ablution block, both in Letlhakane.

For the construction of an ablution block within Letlhakane shopping Centre, we partnered with Dream Choice, Medupi Plant Hire, Trollope, one of our main contractors, the Council and community. We developed a partnership and agreement with our mining neighbour, Debswana, and the Water Utilities Corporation, wherein our excess water is piped to Orapa. Other partnerships with our contractors include co-sponsoring of the annual General Manager Cycle Challenge and the 2019 Inter-mine First Aid Competition, which was hosted at Karowe.



We participated in the Nna Ke Naledi workshops with the First Lady to create awareness of gender equality. There were three workshops in total.

## Stakeholder Engagement

Our Stakeholder Engagement Plan sets out our objectives, mechanisms, frequency and responsibilities for stakeholder engagement throughout the mine lifecycle. This plan was updated in 2019 to better adjust it to the size and scope of our current and proposed future operations, and part of our plan is to maintain a digital stakeholder engagement management system. Our approach to stakeholder engagement is presented below.

CATEGORY	STAKEHOLDER GROUP	ENGAGEMENT FOCUS AREAS
<b>1 – High impact and influence</b>	Villages within the Mine’s sphere of direct influence.	Dissemination of information on planned activities and impacts; Community development opportunities; Community infrastructure development; Other community benefits; Job opportunities  Obtain feedback on, mitigation and management of KDM socio-economic and environmental impacts, and effectiveness of community development activities
<b>2 – High influence, low impact</b>	National Government  Utilities parastatals (BPC, WUC)	Regulatory compliance; Information dissemination on project developments and impact mitigation; Reporting on production figures, on labour returns and injuries, on land leased from the Land Board; and Incidents reporting;  Coordination on sustainability projects; requesting services and minimising impacts on existing infrastructure.
<b>3 – Moderate impact and influence</b>	Villages in Boteti Sub-District but outside the mine’s sphere of direct influence.  Local government  Vulnerable persons (Community home based care, children in need of care, youth, women)  Other mines in the area	Community development opportunities; Other community benefits; Job opportunities; Obtain feedback on effectiveness of community development projects  Community development coordination; Information dissemination on project developments and impact mitigation  Obtain information on planned developments that may result in cumulative impacts if coinciding with KDM activities
<b>4 – Low impact and influence</b>	Civil Society  Media	Feedback on adherence to commitments made; Build partnerships with developmental NGOs for community development initiatives  Advertisements of planned public meetings/engagements Dissemination of information on planned KDM activities Media statements



## INVESTING IN TODAY & THE FUTURE

In addition to the creation of jobs and payment of taxes and royalties, we are committed to contributing to the development of our local communities. We pursue this through strong partnerships with government, community organisations, NGOs and our neighbouring companies. In 2019, we directly contributed \$590,000 in community development projects.

In 2019, we strengthened our Sustainability Department with the addition of a Sustainability Coordinator, Community Investment Officer and Administrative Assistant. In previous years, we relied on the assistance of the Lundin Foundation to pursue and develop community projects. The Community Investment Officer position was developed to assume the role that had previously been filled by the Lundin Foundation. Our Community Investment Officer works directly with communities, providing training in business and leadership. This has helped increase the effectiveness and impact of our projects.

We pursue our community development initiatives through a “ground up” approach. This means that we seek to address needs that have been identified by our host communities. They submit requests for support of their proposed activities, after which a selection of these requests is subject to feasibility studies, before we decide on any financial commitments.

In 2019, we continued to support important community projects. These include the Letlhakane Abattoir and the Mokubilo Integrated Farm, both highlighted further below. Furthermore, in partnership with the Sub-District Council, we continued to plan the development of a school and sports complex within Letlhakane village.



Letlhakane abattoir continues to be supported by Lucara Botswana

### Letlhakane Abattoir

During the construction of the Karowe Diamond Mine, the Letlhakane community requested support for the publicly owned abattoir following persistent shutdowns due to hygiene and other concerns. Livestock farming is an important livelihood in the area and the abattoir is a critical link in the value chain of cattle farming.

Lucara’s investment in recent years has involved the redevelopment of the abattoir, in partnership with the Central District Council, which is the facility owner/operator.

In 2019, we continued strengthening institutional and management capacity of the abattoir. We have also supported a feasibility study reviewing the privatisation of the abattoir to help ensuring sustainable operations and long-term benefits for the community.



First Karowe Village Initiative: the Mokubilo Co-operative Society Farm

## Karowe Villages Initiative

In 2018, we launched the Karowe Village Initiative (KVI), focussed on investing in and developing sustainable, community-driven projects and initiatives. As part of our program, we conducted a feasibility study, invested in and continue to support the Mokubilo Co-operative Society Farm, the first KVI project. Our support emerged in response to the Mokubilo village's request to address malnutrition, provide affordable and locally available vegetables and protein, and generate employment opportunities.

Our previous activities included helping the village establishing the cooperative, drilling a well, and installing a solar-powered pump, irrigation system and lighting. In 2019, we helped strengthen the capacity of the farm's board and management, and supplied the cooperative with a vehicle to enable distribution of their farm products to customers. After meeting the nutritional needs of the village school, excess produce is distributed for local sale. In early 2019, the farm's first harvest and sales were achieved.

In 2019, work began on the second KVI project, a fodder and small stock farm in Khwee. A feasibility study was completed and land was selected near the village.



Our operations contribute directly to Botswana's ongoing economic development, with the mining sector being key to lifting the country out of poverty since independence in 1966.

Lucara Botswana contributes through direct and indirect employment, local procurement and payment of taxes and royalties (\$127.2 million, see also page 13), which supports the government and its poverty alleviation measures throughout the country.



We contribute to reducing the risk of hunger in Botswana through our role in national and local economic development and continued support to Mokubilo Farm. The main aims are to directly grow and provide food produce to nearby villages and schools, and to operate as a model farm for farmers improve their production and livelihoods.

## Sports Complex and School

We continue to engage with Boteti-Sub District Council on the development of the new multi-purpose sports complex and school to help alleviate the shortage of schools in Letlhakane. The project includes a children's day care centre and primary school, with the option to include a Junior and Senior Secondary School in future years. We celebrated the ground-breaking of the sports complex in January 2020. The development of this school will be partially funded by proceeds from the jewellery auction of Lucara Diamonds' jewellery designer's competition (see box).

### LUCARA'S JEWELLERY DESIGNER COMPETITION

In late 2019, Lucara invited jewellery designers from Botswana to enter a competition to create a statement piece of jewellery.

Mpho Mokgatle, an ambitious jewellery designer born in Moshupa, won the competition. The Lucara Jewellery Designer unveiling event was attended by the First Lady Neo Jane Masisi and the Jewellery Association of Botswana.

The winning piece will be crafted and is expected to be worn during a major red carpet event, such as the Oscars or Grammys, in 2020. Afterwards, the winning piece will be auctioned off to raise money towards the school that will be built in Letlhakane. The winning designer will also have the opportunity to attend and experience the glitz and glamour of the red carpet event, and meet the celebrity showcasing his statement piece of jewellery.



Lucara Sustainability Coordinator awarding a prize to one of the student within Boteti-Sub District

## Scholarships and Donations

In 2019, we continued to support best performing pupils in mathematics, science, English and extra curricula activities by donating approximately \$7,500 in support of award ceremonies in the Boteti Sub-District, which hosts our mining operation. We donated approximately \$130,000 to several organisations to support activities such as village celebrations, cultural events, schools projects and their associated hostels (week-time boarding for children), and support for a regional football league.



We have also provided two scholarships in 2019 for two Botswana students in Advanced Mining Survey program in Zimbabwe, and an MSc in Mining and Engineering (Rock Mechanics) in South Africa.

## ENVIRONMENTAL PERFORMANCE

Our commitment to sustainable development includes our drive for environmental stewardship. We communicate this vision to all our employees, contractors, and other parties with whom we interact in our business activities.

We strengthened our Sustainability Department, which manages and monitors our environmental performance, by creating a new Environmental Officer position to be recruited in early 2020.

Our systemic approach to reducing, monitoring and managing our environmental impact is based on an Environmental Management Plan (EMP). This plan is structured in accordance with ISO 14001 and designed to meet with the IFC Performance Standards and the Equator Principles. Furthermore, our EMP has been updated in 2019 and, again, in 2020 to reflect the proposed underground mining operations.

We maintain an incident register to record and report significant incidents using a tiered classification and reporting system. In 2019, no major environmental incidents were recorded. Recorded incidents were generally categorized as “L1” (the lowest level of significance under Botswana Chamber of Mines classification), assigned to, for example, small oil spills from a machine breakdown.

Our environmental performance is reported routinely to Lucara’s senior management, both in Botswana and Canada, and discussed quarterly at the Board level. Our operations are subject to independent environmental audits every two years.

We received no fines or monetary sanctions for non-compliance with environmental laws and regulations during 2019, and we experienced no reportable non-compliance incidents.



View Karowe Diamond Mine environs

### Environmental Expenditure

As in previous years, our most significant environmental expenditures in 2019 were related to the management and extension of our coarse rock tailings, the tailings management facility, and mine closure and rehabilitation, including financial provisioning. The expenditure for tailings management reflect that lifting a new paddock was started in 2019 and will be completed in 2020. The introduction of a more modern mining fleet in 2018 significantly reduced maintenance related waste generation and associated costs.

ENVIRONMENTAL EXPENDITURE (\$)	2017	2018	2019
Tailings and slimes management (capital)	1,435,998	1,260,665	686,262
Environmental monitoring	51,687	22,224	17,135
Waste management	132,233	201,045	152,164
Rehabilitation and mine closure	1,586,026	2,219,487	2,076,769
<b>TOTAL</b>	<b>3,205,945</b>	<b>3,703,421</b>	<b>2,932,330</b>



Aerial view of Karowe Diamond Mine

## Land Management

The area of disturbed land continued to increase in 2019 due to the execution of the mining plan, and mainly due to the planned increase of waste rock storage areas. We are committed to undertaking progressive rehabilitation and restoration of the land when appropriate and have created plans to develop related test plots.

<b>LAND MANAGEMENT</b> (hectares)	<b>2017</b>	<b>2018</b>	<b>2019</b>
Total Amount of Land Owned	1523	1523	1523
Total of Land Disturbed and Yet not Rehabilitated	486	498	583
Total Amount of Land Newly Disturbed Within the Reporting Period	21	13	85
Total Amount of Land Rehabilitated Within the Reporting Period	0	0	0
Total Amount of Land Rehabilitated and Handed Over to Local Government	0	0	0

Karowe Mine Licence

## Biodiversity

The environmental impact assessment conducted by Geoflux in 2008 for the Karowe open pit mine concluded that its overall impact is low. This is due to the absence of rare or endangered species, and historically modified environment through livestock grazing in the region. We developed a Biodiversity Action Plan to avoid, mitigate and manage impacts. This plan identifies how to interact with the surrounding ecosystems, such as clearing of vegetation only when required, protecting large trees, implementing alien species management, and establishing a nursery for *Acacia erioloba*.

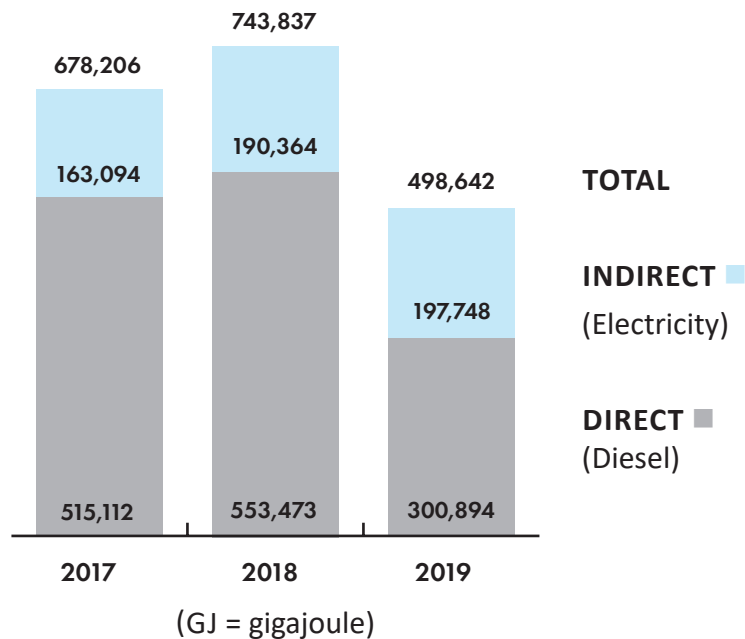
## Decommissioning and Site Restoration

We are committed to progressive rehabilitation and restoration of the land. The projected liability for decommissioning and site restoration is approximately \$23 million for a projected Life of Mine to 2026. In response to the results of the 2019 feasibility study, Karowe's closure plans and associated cost estimates will be revised in 2020. Trials for rehabilitation of slopes will commence in 2020.



Diesel truck transporting fuel for mine equipment and vehicles

## ENERGY USE (GJ)



## Fuel and Power Use

Given the importance of resource efficiency, we monitor and manage fuel and electric power consumption at Karowe.

## Electricity Consumption

Karowe operations are grid-connected to the state-owned Botswana Power Corporation (BPC). BPC operates thermal coal-power stations and is part of the Southern African Power Pool. The electricity supply to the mill accounts for the bulk of our indirect energy use.

Electricity use increased by approximately four percent compared to the previous year, largely reflecting an increase in the volume of ore milled by 6.7 percent. Therefore, relative energy efficiency has improved since 2018 in terms of operating the new plant equipment. We also monitor energy usage and have maintained our power factor – a measure of efficiency in alternate current electricity systems - at 0.98 compared to a target of 0.99.

Karowe experienced three significant power interruptions during 2019. A second power line to Karowe was constructed in 2019. This has significantly improved power security and provides a standby in the event of failure or maintenance of the first line.

## Diesel Consumption

Diesel fuel, mainly consumed by the mobile equipment fleet operating at the mine, accounts for the bulk of our direct energy use, with a small amount used for powering generators. The amount of diesel fuel usage was significantly reduced in 2019. This was largely due to a reduction of waste rock removal, the use of new mobile equipment fleet, and implementation of fuel efficiency measures, which are highlighted in the Mining Section.

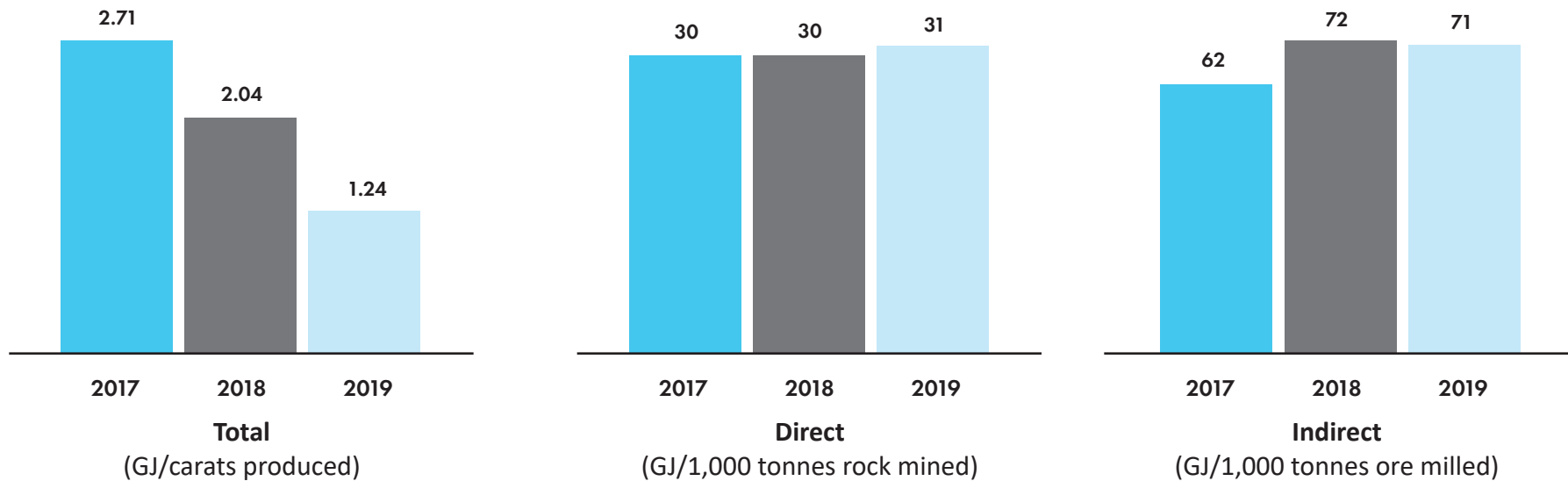
## Exploring Renewables

In 2019, we conducted a study to investigate alternative energy sources, such as solar PV, as well as options to manage our overall consumption and peak demand. However, the decision to further investigate the feasibility of these options depend on the development of the proposed underground mine.

## Energy Intensity

We report energy intensity in three ways: (1) gigajoules per 1,000 carats produced; (2) gigajoules of direct energy per 1,000 tonnes of rock mined; and (3) gigajoules of indirect energy per 1,000 tonnes of ore milled. The intensity in GJ/1,000 carats decreased in 2019 (for direct and indirect energy use) following the trend from 2017. Energy intensity relative to tonnes of ore milled (direct and indirect) shows a significant decrease after a marginal increase in 2018. This largely reflects the reduced waste rock removal requirements in 2019 (saving fuel), and, to a lesser extent, reworking of coarse tailings to recover diamonds, requiring less milling and related electricity consumption.

## ENERGY INTENSITY





Mining activities in Karowe Diamond Mine

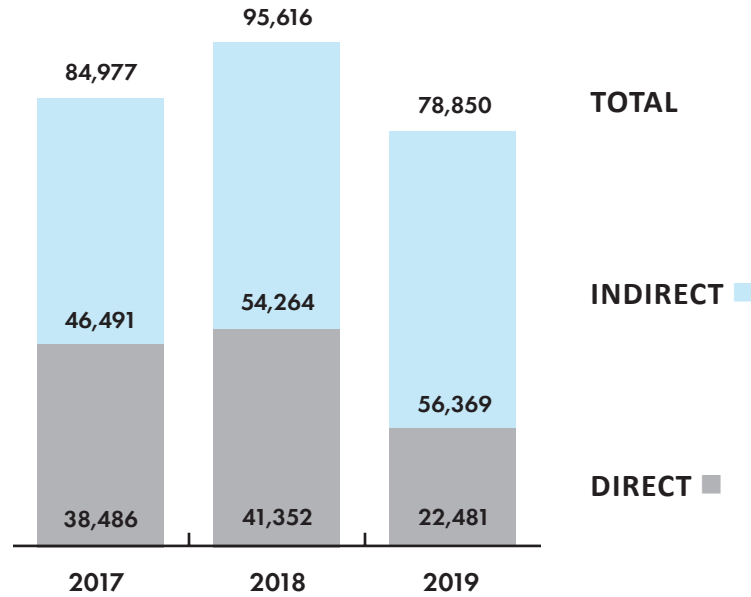
## Greenhouse Gas Emissions

Climate change is emerging as a physical, financial, societal and reputational risk, which is why it is essential for any company to be aware of its carbon footprint.

Although we plan to continue to pursue energy efficiency and review our options for renewable energy, our potential for achieving a significant reduction in our greenhouse gas (GHG) emission will be limited over time. Our mobile vehicle and equipment fleet is diesel powered. Electrifying our vehicles would switch emissions from diesel fuel to less desirable GHG emission from coal-powered grid-electricity.

We will continue to monitor the development of the emerging renewable power market in Botswana as it may provide new opportunities, such as power purchase agreements, to help reduce or offset our carbon footprint.

## GREENHOUSE GAS EMISSIONS



(tCO<sub>2</sub>e = tonnes of CO<sub>2</sub> equivalent)

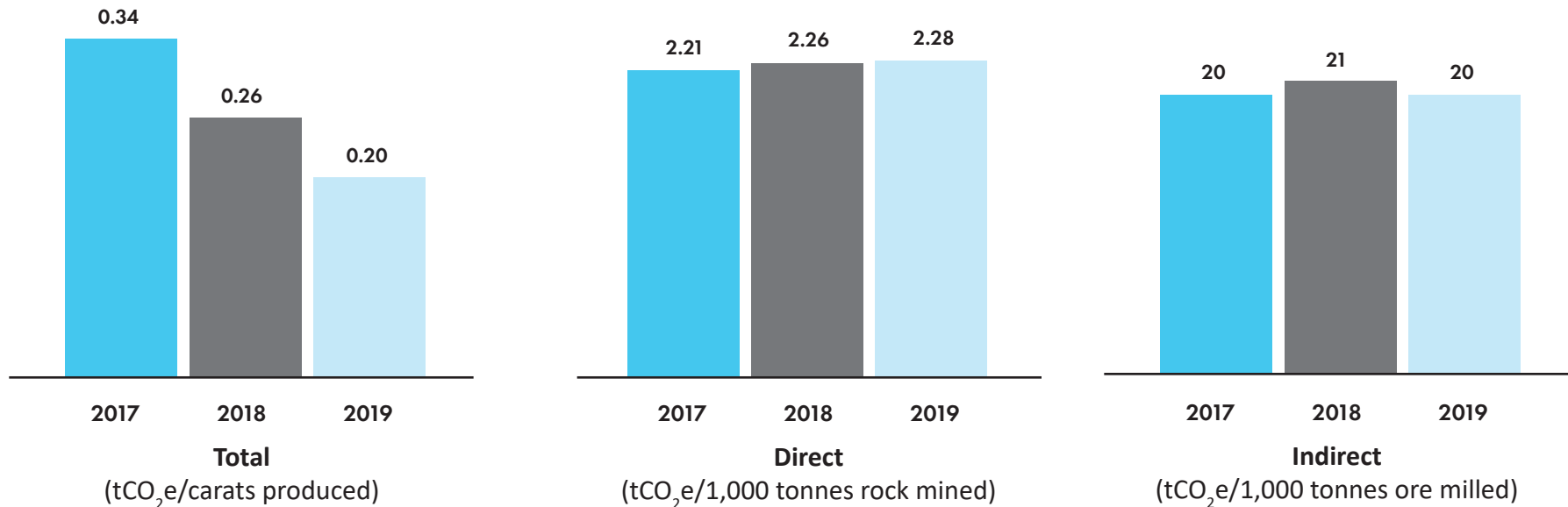
Conversion factors for 2017-2019 GHG reporting: 2.68697 kg CO<sub>2</sub>e per litre of diesel (DEFRA, 2019) and 1.0262 tCO<sub>2</sub>/MWh for electricity (Southern African Power Pool, 2018)



## GHG Intensity

We review and report our GHG intensity measures using three normalizing methods: (1) carats produced, (2) rock mined, and (3) ore processed. Our GHG intensity normalized by carats produced continues to decline.

## INTENSITY OF GREENHOUSE GAS EMISSIONS



## Climate Change Risk

As a semi-arid country, Botswana is vulnerable to the impacts of climate change, such as changes in rainfall patterns, soil erosion, and groundwater recharge. Risks related to climate change could impact agricultural production, food security and water availability. To mitigate these risks, Botswana declared its intentions to reduce by 2030 its overall emissions production by 15 percent, taking 2010 as the base year, targeting the energy and transport sectors.

Even though projected effects of climate change in Botswana and its government's policy responses are not expected to impact Lucara Botswana's operations directly, we are committed to reduce our carbon footprint and we will continue to monitor the emerging renewable energy landscape in Botswana as it may provide interesting opportunities for the future.



Mining activities in the Karowe Diamond Mine

## Air Quality and Dust Management

We monitor our dust levels at 12 sites around Karowe and at the access road, and we provide mitigations as needed. This includes installing additional dust filtering and extraction technology on our process machinery. We routinely apply water and have implemented speed limits on the unpaved mine access road to assist with dust suppression. Dust fallout concentrations observed during 2019 complied with the South African residential and non-residential area standards, the applicable benchmark for our operation. No grievances concerning dust fallout were recorded during 2019.

### 6 CLEAN WATER AND SANITATION



We employ a fulltime onsite hydrogeologist to manage and monitor our water extraction and wastewater activities to minimize negative impacts on communities or nature. We investigate and address water-related concerns or complaints. We also collaborate with stakeholders to improve the reliability of a safe, clean water supply in Letlhakane.

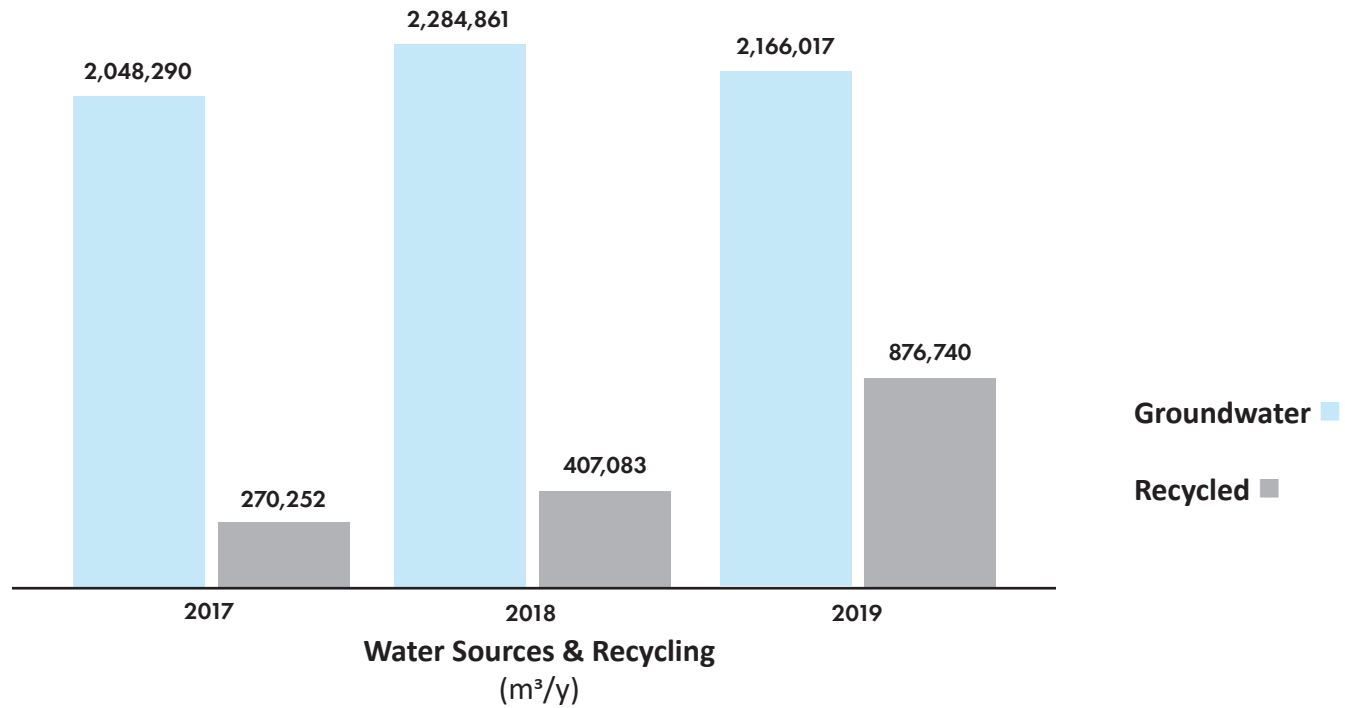
## Water Use and Management

Botswana's climate and limited permanent surface water bodies in the region where we operate mean water resources are very important to local communities, agricultural activity, our operation, and several other diamond mines operating in the region. Our approach to water use and management is to "reduce, reuse and recycle" whenever possible, therefore minimising our water footprint across all our operations. We employ a dedicated hydrogeologist on-site to help carefully manage and monitor our water use and impacts.

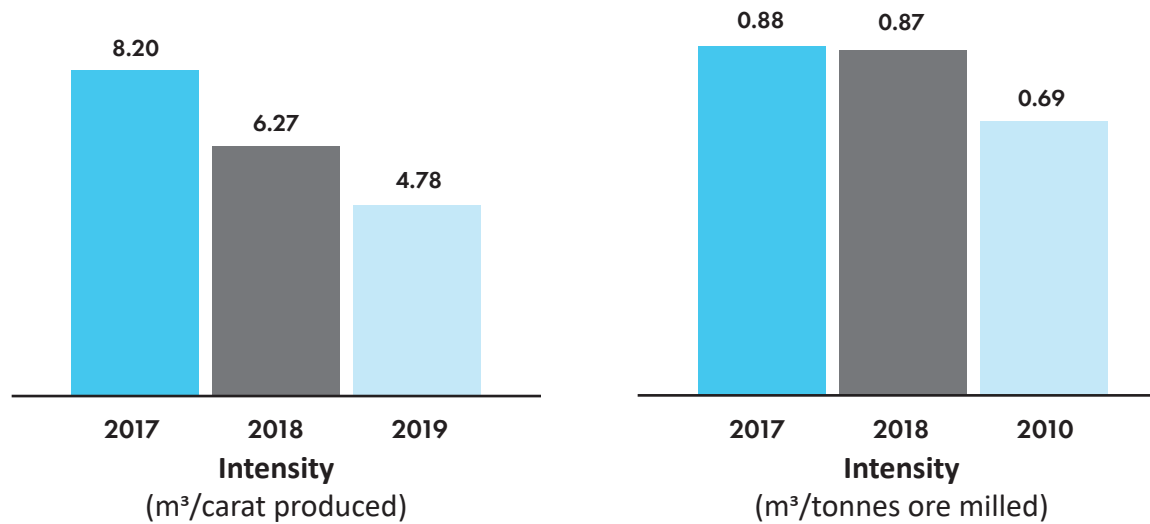
As typical for open cast mining operations, dewatering the pit using a series of groundwater abstraction wells and from the pit sumps is a necessity to ensure safe working conditions. The produced water is used to meet the operational needs at Karowe. This including small quantities of groundwater which are treated to provide potable water at the mine site.

The aquifers we pump from, at over 100 metres depth, are extensive across central Botswana. This aquifer also serves as the water source for other mining operations and for the Letlhakane municipal supply. The latter is located at approximately 10 kilometres from the Karowe Mine, and is not affected by our operation.

The capacity and depth of the aquifer means it is not significantly impacted by low rainfall periods, such as the 2019 drought. Our water usage does not impact on neighbouring farm wells, which draw from a physically separate and shallow aquifer, as confirmed by our network of monitoring wells. In 2019, no water-related grievances were registered.



Groundwater extracted in 2019 includes 238,050 m<sup>3</sup> transferred to Orapa Diamond Mine; Rainwater collected and municipal water used in our offices are not considered material



Intensity based on total groundwater withdrawn, excluding recycling and water transferred to the Orapa Diamond Mine



Aerial view of Karowe processing plant and water treatment plant

### Water Use and Recycling

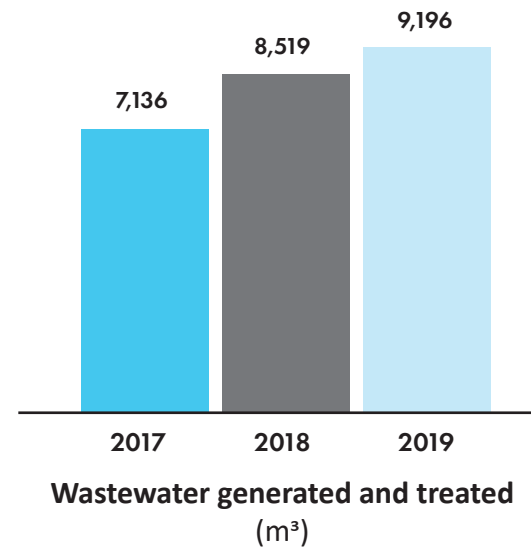
The volume of groundwater withdrawn to dewater the open mine pit varies over time. It is dictated by our mining activities and variable hydrogeological conditions encountered. In 2019, improved water extraction from tailings allowed us to recycle 876,740 m<sup>3</sup> of water in 2019, more than doubling our performance from 2018, and further reducing the water intensity of our production. This means that, unlike previous years, we had surplus water in 2019.

In 2019, following discussions with the Water Utilities Corporation and the Debswana Diamond Mining Company, we were able to direct 238,050 m<sup>3</sup> of surplus water to Debswana’s Orapa Diamond Mine. We also used 186,190 m<sup>3</sup> of water for dust suppression on the access road to our mine.

Considering our overall water use and management, contributions from rainfall at the mine site, and small volumes of municipal water used in our offices in Botswana and elsewhere are not considered material, therefore not monitored or reported.

### Wastewater Treatment

Our wastewater treatment plant, servicing the Karowe mine and a company-sponsored housing compound in Lethlakane village, collects and treats sanitary effluents meeting compliance levels in line with surface water discharge standards, including disinfection of pathogens. The pond used for treated effluent storage is lined. We use the treated water to irrigate lawns and gardens around our office buildings at the Karowe mine. Solid waste from wastewater treatment is either incinerated or stored as fertilizer for future land restoration areas.





Conveyors and ore processing facilities

## Waste Management

Our environmental management plan details our waste management strategy and approach. We segregate our waste streams into three main categories: inert, general, and special wastes, the latter including categories of hazardous waste. We have five waste management facilities within the mine lease area: a licensed landfill, a sewage treatment plant, a salvage yard, and two fixed incinerators, mainly used for oily rags.

### Domestic Waste

We established a landfill for primarily domestic waste that includes non-hazardous and non-recyclable waste. This landfill was developed in accordance with Botswana's guidelines, including installation of a protective membrane lining. Following the inspection by the regulator in November 2018, the completion of recommended improvements, and a final inspection in July 2019, we received the full licence to operate our on-site landfill in November 2019.

### Hazardous Waste

Our salvage yard is used to sort and store a range of hazardous waste materials, such as light vehicle tires, oil, grease and fluorescent tubes, prior to removal off site to appropriate facilities. Oil is stored in a bunded area with periodic removal and offsite disposal. Used car batteries are stored safely and periodically removed for recycling or safe disposal.

We recorded a significantly lower amount of incinerated hazardous waste in 2019 (8,412 kg) compared to 21,080 kg in 2018. This reduction can be attributed to the change to a new fleet of vehicles at the end of 2018. The new fleet has meant fewer breakdowns and less associated waste production. The mine generated 39,469 litres of oil-contaminated water during 2019 (a reduction from 44,000 litres in 2018), which is collected by an authorised waste oil collector. Part of this effluent is recycled, and the balance is directed to a municipal wastewater facility.

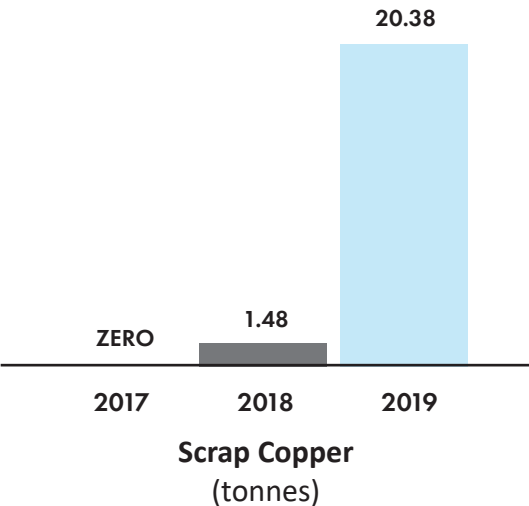
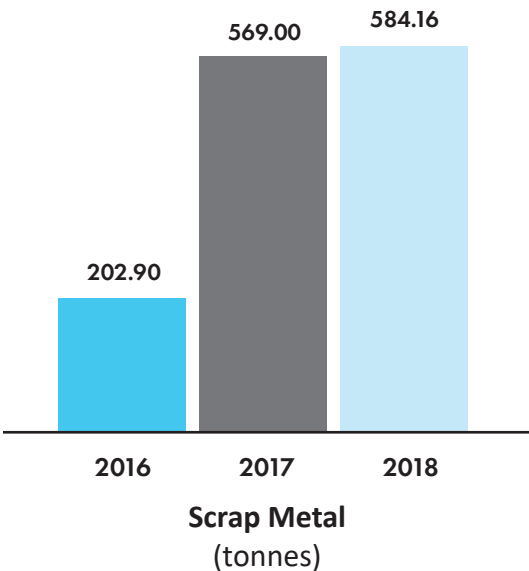
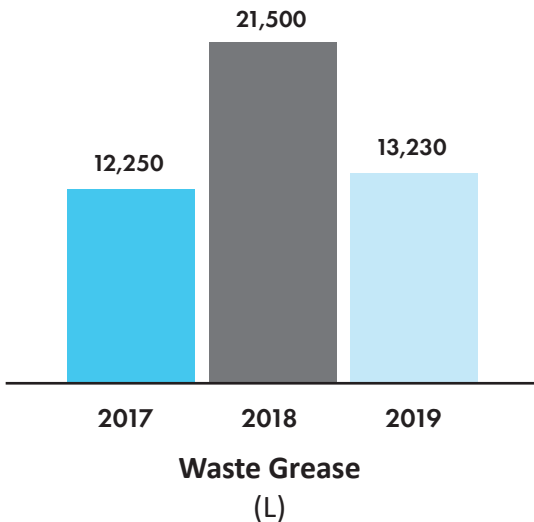
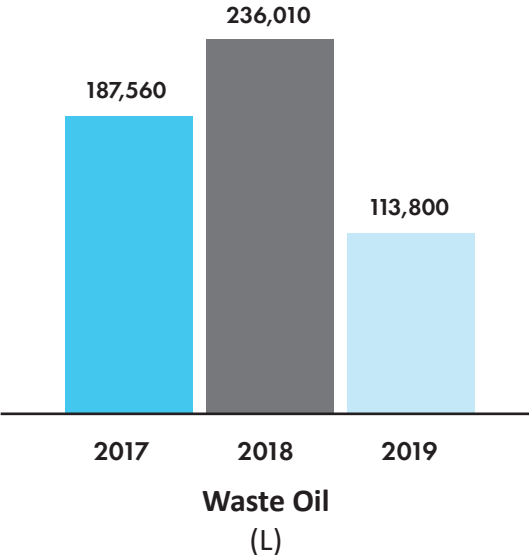
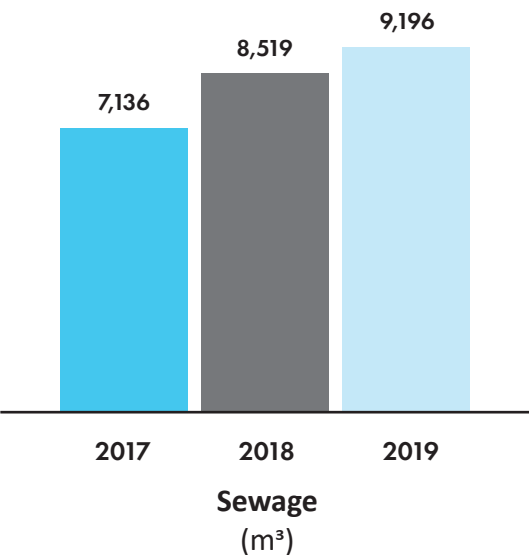
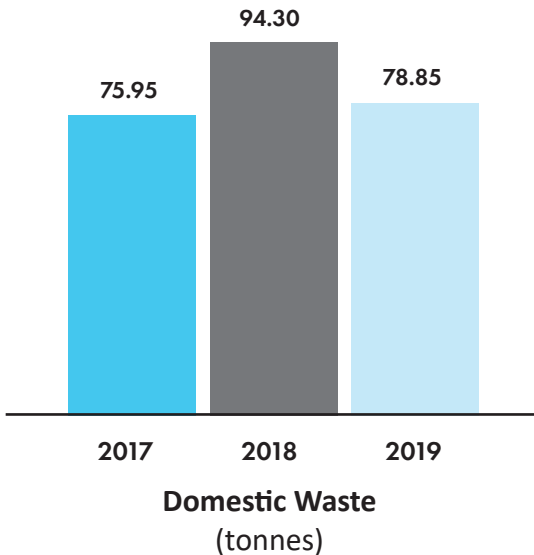
In 2019, our diamond cleaning facility in Gaborone generated 217 litres of hazardous liquid chemical (including perchloric, nitric, hydrochloric, and hydrofluoric acids, sodium hydroxide and methanol). Associated effluent is neutralized before authorized discharge to the municipal industrial wastewater facility.

The Botswana Chamber of Mines with other government authorities are exploring options for the disposal of large truck tires from mining operations throughout Botswana, which is likely to include some recycling. We will continue to store tires onsite until a solution becomes available.

### Scrap Metals

Scrap metals are collected in our salvage yard. Periodically, scrap metals are removed or sold for recycling.

# WASTE DISPOSAL





**CLARA DIAMOND SOLUTIONS**

# CLARA

Clara Diamond Solutions Limited Partnership (Clara), a wholly owned subsidiary of Lucara, is a secure, digital sales platform. It uses proprietary analytics, together with cloud and blockchain technologies, to modernize the existing diamond supply chain from mine to the ultimate polished product.

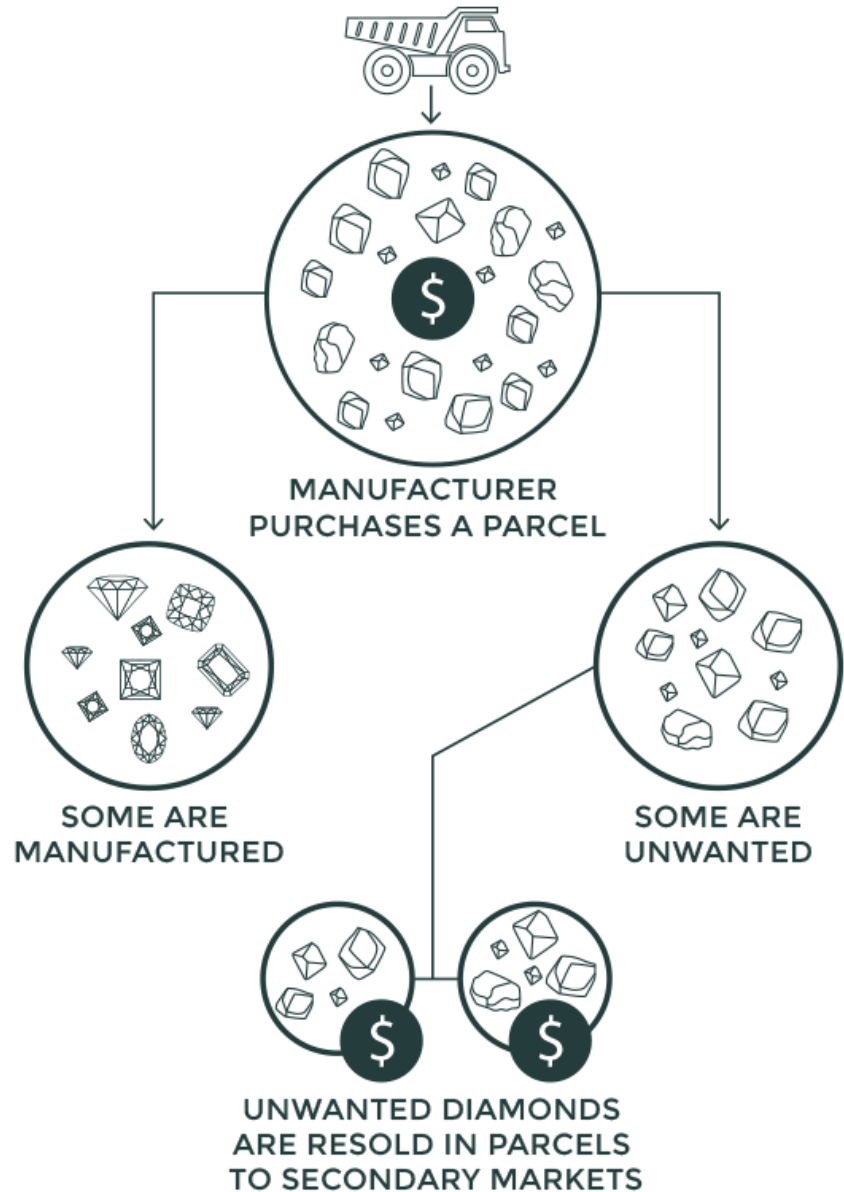
## SUPPLY CHAIN INNOVATION

Clara is an exciting and evolving technological business solution for the diamond industry, uniquely positioned to transform and modernize the diamond sales process, and facilitate sales of rough diamonds individually, rather than in batches. Clara leverages proprietary analytics together with the latest cloud and blockchain technologies to sell diamonds stone by stone, based on client specific requirements and needs. The result is a completely streamlined, "pull" style supply chain that creates efficiencies, and unlocks value for buyers and sellers alike.

## FIRST YEAR OF OPERATION

After a successful launch in November 2018, Clara completed its first full year of operations with at total of 15 sales, 27 customers and volume transacted of \$8.4 million. In 2019, Clara's website was launched and numerous improvements to the sales platform were implemented to enhance both the buyers and seller experience. Clara is poised to achieve significant growth in 2020 with the planned addition of further customers and third-party production.

## TRADITIONAL BATCHING DIAMOND SALES





## CLARA MATCHES STONES TO BUYERS



### MATCHING SUPPLY & DEMAND

Clara's proprietary sales mechanism includes sorting and scanning of every rough diamond individually to create a unique digital fingerprint. This automated process captures a range of attributes including size, colour, quality, and cut potential – and removes human subjectivity and error. The digital information, along with provenance information for each diamond, is uploaded to the Clara platform where the rough diamond is available for sale. Diamond manufacturers can place specific orders based on their precise needs. Clara's proprietary technology finds the optimum match of supply and demand, stone by stone, thus replacing the traditional system of buying a parcel of rough diamonds. In 2019, Clara actively engaged with its customers and made numerous improvements to the platform to ensure that clients are able to quickly and efficiently modify orders to meet their specific requests. These improvements will improve upon the Clara-client interface.

### CUSTOMER PRIVACY

Clara's operations are confidential business-to-business transactions.

### INTELLECTUAL PROPERTY

Clara has developed, and utilizes and protects its intellectual property that underpin the Clara platform and blockchain technology. We also respect and support our strategic partner, Sarine Technologies Ltd, to protect its intellectual property which is incorporated into Clara's sales platform.

### ENSURING PROVENANCE

Clara's automated scanning and sorting of individual diamonds, along with the use of a cloud-based digital blockchain system, enhances the transparency and traceability of diamond provenance for each diamond from mine to finger.



Materiality workshops held at Karowe, Letlhakane and Gaborone in February 2019

## MATERIALITY ANALYSIS

## MATERIAL TOPICS

In line with the GRI Standards, we define our material topics as those which reflect our significant economic, environmental, and social impacts, or could substantively influence the decisions of our key stakeholders.

Our materiality analysis benefits from our previous sustainability reporting efforts, structured workshops conducted in early 2019 with internal stakeholders at Karowe Diamond Mine, our senior management at our offices in Gaborone, and with community representatives from Letlhakane village. In discussion with our management and executive teams, we validated our material topics.

The seven material topics incorporated into Lucara’s 2019 reporting are presented below and are detailed further in the GRI Index (Appendix 1: Lucara's Material Topics Matrix) accessible at [www.lucaradiamond.com/sustainability](http://www.lucaradiamond.com/sustainability).

2019 OUR MATERIAL TOPICS	WHY IMPORTANT?	Lucara Diamond Corp.	Lucara Botswana	Clara
Innovation & Economic Performance	Critical to all aspects of our business to ensure sustainable and successful growth.	●●●	●●●	●●●
Product Stewardship	Responsible mining practices and provenance are essential to establishing and maintaining trust with our customers.	●●●	●●●	●●●
Local Content: People & Supply Chain	Creates positive economic impacts and shared value.	●	●●●	
Community Development	Supporting local communities is essential to maintain our social license and leave a positive legacy.	●●	●●●	
Health, Safety & Wellness	Core part of our responsible mining practices, aligned with regulatory requirements and Global Compact; health and happy workers are critical to our success.	●●	●●●	●
Partnerships	Critical to successful business, magnifies community development, and supports SDGs aligned with Botswana’s development strategy.	●●	●●●	●●
Environmental Stewardship	Core part of our responsible mining practices, host country regulatory and RJC certification requirements.	●●	●●●	

●●● = strong link; ●● = important link; ● = some link; Blank = no or limited link

# INDEPENDENT ASSURANCE REPORT TO THE MANAGEMENT AND STAKEHOLDERS OF LUCARA DIAMOND CORPORATION

## INTRODUCTION

IBIS ESG Assurance (Pty) Ltd (IBIS) was commissioned by Lucara Diamond Corporation (Lucara) to conduct an independent third-party assurance engagement in relation to the sustainability information in Lucara's Sustainability Report (the report) for the financial year that ended 31 December 2019.

IBIS is an independent licensed provider of sustainability assurance services. The assurance team was led by Petrus Gildenhuis with support from Adam Sutton-Pryce and Sharon Kekana. Petrus is a Lead Certified Sustainability Assurance Practitioner (LCSAP) with over 20 years' experience in sustainability performance measurement involving both advisory and assurance work.

## ASSURANCE STANDARD APPLIED

This assurance engagement was performed in accordance with AccountAbility's AA1000AS (2008) standard and was conducted to meet the AA1000AS Type II moderate level requirements.

## RESPECTIVE RESPONSIBILITIES AND IBIS'S INDEPENDENCE

Lucara, is responsible for preparing the report and for the collection and presentation of sustainability information within the report, notwithstanding any third-party support in compiling the report.

IBIS applies a strict independence policy and confirms its impartiality to Lucara in delivering the assurance engagement. This assurance engagement is the fourth consecutive assurance engagement conducted for Lucara by IBIS.

## ASSURANCE OBJECTIVES

The purpose of the assurance engagement was to provide the management of Lucara and their stakeholders with an independent moderate level assurance opinion on whether the report meets the following objectives:

- Adherence to the AA1000APS (2008) AccountAbility principles of inclusivity, materiality, responsiveness and impact.
- Alignment to the GRI Standards in respect of the 'core' reporting requirements (Appendix 3, GRI Index: [www.lucaradiamond.com/sustainability](http://www.lucaradiamond.com/sustainability))
- Fair reporting on a selection of operational Key Performance Indicators (KPIs) as related to the identified material issues listed below.
  - Total amount of water used and water use intensity (p 49)
  - Total direct and indirect energy used and energy use intensities (p 44, 45)
  - Scope 1 and 2 GHG emissions and intensities (p 46, 47)
  - Waste disposed in the different categories (p 52)
  - Number of fatal injuries (p 31)
  - Lost Time Injury Frequency Rate (LTIFR) (p 33)
  - Absenteeism rate (Appendix 2, Additional health & safety statistics: [www.lucaradiamond.com/sustainability](http://www.lucaradiamond.com/sustainability))
  - Percentage of Botswana nationals in workforce (p 26)
  - Directly employed staff turnover (p 26)
  - Community development spend (p 39)

## **WORK PERFORMED BY IBIS**

IBIS performed the assurance engagement in accordance with the AccountAbility AA1000AS (2008) Type II requirements. The following suitable assessment criteria was used in undertaking the work:

- AA1000APS (2008) (AccountAbility Principles Standard) published criteria for inclusivity, materiality responsiveness and impact respectively.
- The GRI Standards
- Lucara's sustainability reporting guideline

Our assurance methodology included:

- Obtaining supporting electronic evidence from the operation in the form of meeting minutes, scanned documents, registers and transaction documents.
- Inspection and corroboration of electronically received supporting evidence to evaluate the data generation and reporting processes against the assurance criteria.
- Submitting queries to the operation as they arose to provide an opportunity for explanation and data corrections prior to completion of the assessment process.
- Assessing the presentation of information relevant to the scope of work in the Sustainability Report to ensure consistency with the assurance observations.

## **ENGAGEMENT LIMITATIONS**

IBIS planned and performed the work to obtain all the information and explanations believed necessary to provide a basis for the assurance conclusions for a moderate assurance level, in accordance with AA1000AS (2008).

Due to the global Covid-19 pandemic related travel restrictions, no on-site interviews or inspection of operations were conducted. Evidence to support information reported was obtained electronically from Lucara for review and assessment to base our conclusion on. Readers of the report are cautioned to understand this inherent limitation.

## **ASSURANCE CONCLUSION**

Based on the work undertaken for moderate assurance as described, we conclude that the subject matters in the scope of this assurance engagement have been prepared in accordance with the defined reporting criteria and are free from material misstatement in respect of:

- Lucara's adherence to the AA1000APS principles of inclusivity, materiality, responsiveness and impact.
- The report's alignment with the GRI Standards' core requirements
- The selected disclosures identified under assurance objectives above and as presented in the published report.

## KEY OBSERVATIONS AND RECOMMENDATIONS

Based on the work set out above, and without affecting the assurance conclusions, the key observations and recommendations for improvement are as follows:

### In relation to the inclusivity principle

Lucara has a dedicated community relations team and maintained formal Stakeholder Engagement during 2019 focussing on consultation with a range of communities in the Boteti region.

### In relation to the materiality principle

As part of Lucara's materiality determination process it conducted a series of materiality workshops involving local community representatives in the Letlhakane region, Lucara senior management and Karowe operational management. Issues raised during these workshops have been considered and are duly reflected in the Sustainability Report.

### In relation to the responsiveness principle

Traditional community meetings were held at key villages in the district to share information and record issues raised. Several Government stakeholders have also been included in engagement activities throughout the reporting period. Responses to issues raised were found to be directly related to the stakeholder concerns and were conducted in a timely, fair and appropriate manner without prejudice to any one stakeholder group. On-going dialogue with a broad range of stakeholders across the operation is recommended to maintain transparency, mitigate risks arising and create value for both Lucara and its stakeholders.

### In relation to the impact principle

Lucara reports on a range of material environmental, social and governance topics based on its ongoing monitoring, measurement and evaluation of its impacts; both qualitatively and quantitatively. Ten of the UN SDGs that most

closely align with Lucara's business have been adopted and reported on for 2019, demonstrating Lucara's impact related to the relevant topics. New targets towards achieving on each of the ten SDGs have been set for 2020. This is further supported by Lucara's product stewardship commitments through the Kimberley Process Certification Scheme (KPCS), Responsible Jewellery Council (RJC) certification, and the Diamond Producers Association (DPA) membership. It is recommended that Lucara continue to report on the progress against its targets set in terms of the select SDGs as well as the impacts on its stakeholders and on Lucara's business itself.

### In relation to GRI reporting

A review of the report against the GRI Standards indicated that Lucara effectively reports in accordance with the GRI Standards - "core" disclosure requirements.

### In relation to the selected KPIs

IBIS is satisfied with the final data accuracy in the assurance scope. Inconsistencies noted were corrected prior to data finalization. The continued application of effective management review controls is recommended to minimize the occurrence of data errors.



### Petrus Gildenhuys

Director, IBIS ESG Assurance (Pty) Ltd  
Johannesburg, 1 July 2020



AA1000

Licensed Assurance Provider  
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The assurance statement provides no assurance on the maintenance and integrity of sustainability information on the website, including controls used to maintain this. These matters are the responsibility of Lucara.

## CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

Certain of the statements made and contained herein and elsewhere constitute forward-looking statements as defined in applicable securities laws. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "expects", "anticipates", "believes", "intends", "estimates", "potential", "possible" and similar expressions, or statements that events, conditions or results "will", "may", "could" or "should" occur or be achieved.

Forward-looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to a number of known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievement expressed or implied by such forward-looking statements. The Company believes that expectations reflected in this forward-looking information are reasonable but no assurance can be given that these expectations will prove to be accurate and such forward-looking information included herein should not be unduly relied upon.

In particular, this Sustainability Report may contain forward looking information pertaining to the following: estimates of the Company's cash flows from operations and what impact that cash-flow could have to the Company's ability to achieve its five-year plan; the use of capital for early works related to a possible underground mine development and that those early works could mitigate key schedule risks; the timing for an investment decision and the conditions to development of an underground mine, which may include but which are not limited to: the receipt of all required authorizations and the arrangement of financing; the schedule of development of the underground, the production profile at Karowe and anticipated changes in diamond pricing, including trends in supplies and demands and the potential for stability in the diamond market and diamond pricing; the likelihood and impact of completing an underground expansion at Karowe to the mine-life and total

revenue generated; changes to foreign currency exchange rates; the timing and ability of management to further commercialize the Clara digital sales platform, the impact of adding third-party production to the platform and the timing for that activity to occur, management's expectations regarding the frequency of sales, the number of participants at each sale and the impact those items could have on the growth and success of the platform and other forward looking information.

There can be no assurance that such forward looking statements will prove to be accurate, as the Company's results and future events could differ materially from those anticipated in this forward-looking information as a result of those factors discussed in or referred to under the heading "Risks and Uncertainties" in the Company's most recent Annual Information Form available at <http://www.sedar.com>, as well as changes in general business and economic conditions, changes in interest and foreign currency rates, the supply and demand for, deliveries of and the level and volatility of prices of rough diamonds, costs of power and diesel, acts of foreign governments and the outcome of legal proceedings, inaccurate geological and recoverability assumptions (including with respect to the size, grade and recoverability of mineral reserves and resources), and unanticipated operational difficulties (including failure of plant, equipment or processes to operate in accordance with specifications or expectations, cost escalations, unavailability of materials and equipment, government action or delays in the receipt of government approvals, industrial disturbances or other job actions, adverse weather conditions, and unanticipated events relating to health safety and environmental matters).

Accordingly, readers are cautioned not to place undue reliance on these forward-looking statements which speak only as of the date the statements were made, and the Company does not assume any obligations to update or revise them to reflect new events or circumstances, except as required by law.

Top: Mokubilo community farm; Middle: Conveyors leading to main XRT (X-ray transmission) buildings; Bottom: Karowe mine lease area



**LUCARA**  
DIAMOND

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