

## 2016 SUSTAINABILITY REPORT



Sherritt International Corporation is committed to providing a safe and rewarding workplace, operating ethically, demonstrating environmental responsibility, engaging stakeholders and benefitting communities. We will meet or exceed the standards where we operate and continuously improve performance.

The company is celebrating its 90th anniversary in 2017.

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## CEO MESSAGE

**“Our Purpose – to be a low-cost nickel producer that creates sustainable prosperity for our employees, investors and communities – guides all of our actions. Our focus for the year is to carry out our Strategic Priorities, which will strengthen our footing in this challenging market and position us well to create long-term value for all of our stakeholders.”**

**– David Pathe, President and Chief Executive Officer**

This year marks an important milestone for Sherritt: 90 years in business, making us one of the oldest Canadian natural resource developers operating today. This longevity and resilience provide the theme for our 2016 sustainability report: **90 years of “doing the right thing”** – from our start in Northern Manitoba in 1927 to our current mining and energy businesses in Alberta, Cuba and Madagascar.

The past 90 years have seen many changes in our sector, especially in sustainability. Safety has become, without question, the top priority. Addressing climate change and biodiversity impacts are now major industry issues. Companies can no longer expect to operate without their social license. Sherritt has adapted well to society’s evolving expectations, and we will work hard to continually improve and contribute to responsible development well into the future.

The world in which we operate today experienced many changes last year, bringing us into a period of increasing volatility. We saw the presidential election unfold in the U.S., and the death of Fidel Castro in Cuba. The Brexit vote took place, the Paris Agreement on climate change was reached, and commodity prices remained weak and volatile. Over the course of the year, we maintained a strong focus on carrying out our **Strategic Priorities** and staying true to “**Our Purpose and Our Promises**”. This focus positions the company well to address near-term challenges in an unpredictable environment, and pursue future growth opportunities.

### 2016 SUSTAINABILITY PERFORMANCE

Our sustainability results in 2016 were overshadowed by the collapse of a bridge at Moa that claimed the lives of four Cuban workers: Ulises Caballero Velázquez, Osvaldo Sollet Argüelles, Ernesto Suárez García, and Yunior Palencia Bientz. We were saddened by this tragic and unacceptable event, and the impacts it had on the families, our workforce and our company. We are working with our joint venture partner and the Cuban authorities to understand the root cause and identify what must be done to prevent any such future tragedies. Learnings are being applied throughout the company to complement our program to drive continuous improvement in safety culture and behaviours.

In 2016, our overall annual injury rates beat internal targets and compared favourably with those of our peers. During the year, both **Ambatovy** and Fort Saskatchewan achieved milestones of 12 consecutive months without a lost time injury.



Our President and CEO shares some of his thoughts on sustainability in this video.

**Our 2016 Sustainability Report – which covers the period between January 1 and December 31, 2016 – describes Sherritt’s sustainability approach and performance for the year. This report was prepared in accordance with the Global Reporting Initiative’s G4 Sustainability Reporting Guideline (Core Option), which is widely considered industry best practice.**



In October, Hurricane Matthew swept through Cuba. Thanks to the [exemplary emergency preparedness](#) of the Cuban authorities, our joint venture partners and workforce, and nearby communities, the Category 4 storm did not result in any injuries or fatalities, and our business did not experience significant production losses.

Throughout the year, we did not experience any high-severity environmental incidents. Our greenhouse gas emissions dropped by 4% over the previous year, and our emissions profile is poised for further improvement with investments we are making in sustainable equipment and infrastructure, including a new acid plant in Moa and electric vehicles at Ambatovy.

During the year, we made progress on developing enduring and equitable relationships with all of our stakeholders, building on our history of being a partner of choice. We contributed more than \$750 million in economic benefits to host communities and countries in 2016. We also experienced a 45% drop in the number of community grievances in 2016 over the previous year, due in large part to successfully addressing the residual impacts of Ambatovy's construction activities.

I am proud that Sherritt was recently selected as one of [Corporate Knights' Future 40 Responsible Corporations in Canada](#), based on our sustainability performance and disclosure. To build on our leadership in this area, I joined the [30% Club Canada](#) in 2016, pledging to achieve better gender balance at the board and senior management levels of our company.

### LOOKING AHEAD

2017 sustainability priorities for Sherritt include:

- Continuing our journey to zero harm through building a strong safety culture and implementing best-practice standards;
- Developing five-year enterprise-wide sustainability objectives and targets;
- Initiating implementation of our diversity and inclusion plan;
- Conducting our bi-annual employee engagement survey and addressing improvement opportunities;
- Collaborating with our Cuban partners on opportunities to align further with internationally recognized sustainability practices; and
- Implementing our corporate sustainability standards in accordance with our multi-year plan.

Our achievements in sustainability are the result of the hard work and dedication of our employees. They, more than anyone, have defined Sherritt's business over the last 90 years. As we look to the next 90 years, it is our values, innovation and commitment to "doing the right thing" that will continue to shape and drive our success. I look forward to reporting on our 2017 sustainability performance next year.

Sincerely,



**David Pathe**

President and Chief Executive Officer  
Sherritt International Corporation

**For commentary from David Pathe on Sherritt's 2016 financial and operational performance, please read his annual letter to shareholders.**



**Our approach to running a sustainable mining and energy business is grounded in a deep commitment to our guiding principles, as outlined in [Our Purpose and Our Promises](#):**

### **Our Purpose**

To be a low-cost nickel producer that creates sustainable prosperity for employees, investors and communities.

### **Our Promises**

The principles that we incorporate into our everyday decision-making at both the corporate and operational levels include: integrity, agility, safety and sustainability, continuous learning and innovation, and shared prosperity.

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## OUR COMMITMENT TO SUSTAINABILITY

Mining and energy companies use a range of terms to describe their approaches to:

- Ensuring the safety and health of their employees and communities
- Protecting the environment
- Interacting with a wide range of stakeholders
- Providing benefits to local communities
- Respecting human rights
- Establishing respectful and productive relationships with all levels of government
- Ensuring the survival of a viable business

At Sherritt, “sustainability” covers these interrelated and increasingly important aspects of our business.

We are committed to providing a safe and rewarding workplace, operating ethically, demonstrating environmental responsibility, engaging stakeholders and benefitting communities. We will meet or exceed the standards where we operate and continuously improve performance.

This commitment underpins our aspiration to be a recognized industry leader in sustainability management and performance.



## GOVERNANCE

Our Board of Directors and management team are critical to carrying out our commitment to sustainability.

### BOARD OF DIRECTORS

Our Board of Directors has delegated responsibility for sustainability-related matters to its Environment, Health, Safety and Sustainability (EHS&S) Committee. The Committee's mandate is to oversee, monitor and review sustainability policies, management systems, programs and performance.

Specific areas of focus for the Committee include environment, health, safety, security, crisis management, community development, stakeholder engagement, indigenous relations, government relations, business integrity, human rights, and employee engagement and development.

This Committee meets at least four times per year, visits all operating sites regularly, and receives information from corporate and divisional management on a quarterly basis, or more often if required. The Committee Chairperson reports to the Board on significant issues. Refer to this [link](#) to review the full mandate of the EHS&S Committee.

EHS&S oversight is also within the respective board and executive mandates of each of the three joint ventures that Sherritt is involved in. There are dedicated environment, health and safety committees at the board level for the Ambatovy and Moa joint ventures. Experienced Sherritt executives serve on these committees. At Energas, EHS&S matters are also reviewed by the Board, which has directors from Sherritt's senior management team.

### MANAGEMENT STRUCTURE

In our Toronto corporate office, we have two sustainability-related roles at the management level: Director, Corporate Affairs and Sustainability (CA&S) and Director, Environment, Health and Safety (EH&S). The Director, CA&S is responsible for coordinating community relations, community investment, government relations, human rights and security, crisis management and the integrated enterprise sustainability management system. The Director, EH&S is responsible for health, safety and environmental matters. Reporting to our Chief Operating Officer (COO), both positions develop strategy and standards, oversee performance and reporting, and assist our operating sites in the identification and management of material sustainability aspects, issues and risks. They work closely with the management team at all divisions, which are responsible for operating sites, to ensure a practical and coordinated approach to sustainability is in place across our business interests.

Each division is led by a senior executive who also reports to our COO. These individuals are accountable for all operational matters of their respective operating sites, including sustainability. To ensure ongoing and timely management of this broad discipline, we have senior employees at each division with responsibility for health and safety, security, environment, stakeholder relations, and other sustainability functions. Specific roles and team structures at divisions vary, based on the operating environment and related risks at their respective sites.

**“I had the opportunity to attend a large-scale crisis training exercise at the Fort Saskatchewan site in 2016. The team did a good job responding to a series of escalating scenarios. A key part of the process was the post-exercise discussion on learnings derived from the simulation, and I left with the confidence that those learnings would be applied in future. Observing exercises like this one gives the EHS&S Committee confidence in an operating site's level of emergency preparedness, as well as a better understanding of the relationships and collaboration dynamics between a site and the local community. It was great to see a broad range of external stakeholders participate in this training event.”**

**– Tim Baker, Chair, Environment, Health, Safety and Sustainability Committee of the Board**

## SUSTAINABILITY FRAMEWORK

We uphold [our commitment to sustainability](#) through our sustainability framework, which provides a focused and practical approach to prioritizing sustainability issues, risks and opportunities, and to managing performance. The framework consists of a core commitment and a series of issue-specific commitments, which fall under the four pillars below: Providing a Safe and Rewarding Workplace, Operating Ethically, Demonstrating Environmental Responsibility, and Engaging Stakeholders and Benefitting Communities. Our commitments are supported by an integrated management system that sets company-wide standards for planning, implementation, measurement, reporting and assurance of sustainability efforts.

### PROVIDING A SAFE AND REWARDING WORKPLACE

#### HEALTH AND SAFETY

We are committed to providing a safe workplace. Our ultimate goal is zero harm. Zero harm means zero fatalities, no injuries and no work-related illnesses among employees and contractors.

#### PUBLIC SAFETY

Maintain public safety around our sites through risk management, active communication and ongoing community engagement.

#### REWARDING WORKPLACE

Provide a rewarding workplace that engages and develops our workforce, compensates workers competitively, and offers them exposure to world-class operations, projects, processes and people.

### OPERATING ETHICALLY

#### BUSINESS ETHICS

Foster a culture and environment that support and require ethical conduct.

#### HUMAN RIGHTS

Operate our business in a way that respects human rights as set forth in the Universal Declaration of Human Rights.



**DEMONSTRATING ENVIRONMENTAL RESPONSIBILITY**

**TAILINGS MANAGEMENT**

Design and operate tailings management facilities – throughout the mine lifecycle – to meet or exceed applicable regulatory and company standards.

**BIODIVERSITY AND LAND**

Achieve no net loss, or preferably a net gain, of biodiversity for greenfield projects and significant expansions of current operations; and practice progressive reclamation as part of normal operations at all mines, working with local jurisdictions.

**WATER**

Manage water responsibly by optimizing water use, addressing water-related risks to future operational viability and growth, and engaging communities on the use of, and impacts to, shared water resources.

**ENERGY AND CLIMATE CHANGE**

Monitor and track energy use and greenhouse gas emissions at each site and identify opportunities to reduce impact; and understand and mitigate the potential impacts of climate change on our assets.

**ENGAGING STAKEHOLDERS AND BENEFITTING COMMUNITIES**

**STAKEHOLDER ENGAGEMENT**

Engage stakeholders early on and throughout the asset lifecycle; and build relationships based on mutual trust, respect and transparency.

**TRANSPARENCY**

Provide stakeholders with timely and accurate information on the impacts and benefits of our mining- and energy-related activities and management practices.

**COMMUNITY BENEFITS**

Contribute to a lasting improvement in quality of life in the communities where we operate.

**MANAGEMENT SYSTEMS**

While Sherritt’s divisions historically developed their own management systems to address sustainability, the company has recently adopted an enterprise-wide approach. This shift involves developing an integrated system that consists of a series of sustainability standards for the entire company. These standards are developed collaboratively between the corporate office and the divisions. Given the innate differences of the operating environments in Canada, Cuba and Madagascar, the divisions are afforded flexibility in the way in which they implement these standards at their operating sites.

Specific requirements in the standards reflect our experience, our risk profile and industry best practice. As new members of TSM, we endeavour to align with many of the requirements of the [Mining Association of Canada’s \(MAC\) Towards Sustainable Mining \(TSM\) protocols](#). As a member of the [Voluntary Principles on Security and Human Rights \(VPSHRs\)](#) Initiative, we are working to apply the Principles at our operating sites. We are also a Supporting Company of the [Extractive Industries Transparency Initiative \(EITI\)](#), the requirements of which we apply in Madagascar, an EITI Candidate Country. Our approach to crisis management is informed by the [Incident Command System \(ICS\)](#) and the [United Nations’ Awareness and Preparedness of Emergencies at the Local Level \(APELL\) Programme](#). In Madagascar. Our biodiversity management program aligns with the principles of the [Business and Biodiversity Offsets Programme \(BBOP\)](#).

We are currently carrying out a multi-year plan to develop and implement the following corporate standards for sustainability management:

Air Management	Energy and GHG Emissions	Security and Human Rights
Anti-Corruption	Fatality Prevention	Significant Potential Incidents
Biodiversity and Land Management	Grievance Management	Stakeholder Engagement
Community Investment	Health and Safety	Tailings Management
Crisis Management	Indigenous Relations	Waste Management
	Mine Closure	Water Management

## MATERIALITY

In 2015, we updated our assessment of the material (priority) sustainability aspects of our business. This process involved revisiting our existing materiality aspects to ensure they reflect our current context, and analyzing each aspect based on a range of sustainability risks, trends and opportunities that are relevant to Sherritt. Two criteria were considered: the level of expected impact to our business and the degree of stakeholder interest. The review was informed by carrying out a detailed questionnaire with senior management and sustainability employees at both the corporate office and divisions; and assessing publicly available information on the viewpoints of external stakeholders, including:

- Investors
- Opinion influencers (non-governmental organizations, academics, think-tanks)
- Industry associations
- Communities
- Government/Regulators

The compiled aspects were then reviewed by senior management for validation. Those aspects with the highest combined ranking of expected business impact and stakeholder interest are considered “material” for Sherritt and are addressed through our sustainability framework and management system.

The following table maps our material issues against the four pillars of our sustainability framework and details the boundary of impact for each material issue.

PILLAR PROVIDING A SAFE AND REWARDING WORKPLACE			
Material Issue	Issue Boundary (Internal/external) Where do the impacts occur?	Who is the issue material to?	Where is the issue most material?
Health and Safety	Internal	<ul style="list-style-type: none"> <li>• Employees/contractors</li> <li>• Government (regulators)</li> </ul>	Company wide
Public Safety	Internal/external	<ul style="list-style-type: none"> <li>• Employees/contractors</li> <li>• Government (regulators, local authorities, first responders)</li> <li>• Communities</li> </ul>	Company wide
Site Security	Internal	<ul style="list-style-type: none"> <li>• Employees/contractors</li> <li>• Government (regulators, local authorities, first responders)</li> <li>• Communities</li> </ul>	Company wide (focus at Ambatovy)
Employee Relations	Internal	<ul style="list-style-type: none"> <li>• Employees/contractors</li> <li>• Communities (prospective employees)</li> </ul>	Company wide

PILLAR  
OPERATING ETHICALLY

Material Issue	Issue Boundary (Internal/external) Where do the impacts occur?	Who is the issue material to?	Where is the issue most material?
Human Rights	Internal/ external	<ul style="list-style-type: none"> <li>• Employees/contractors</li> <li>• Communities</li> <li>• NGOs/civil society</li> <li>• Customers and suppliers</li> <li>• Government (regulators, local authorities, first responders)</li> </ul>	Company wide
Economic Performance	Internal/ external	<ul style="list-style-type: none"> <li>• Financial community (shareholders)</li> <li>• Employees/contractors</li> <li>• Communities</li> <li>• Business partners</li> <li>• Governments (host jurisdictions)</li> </ul>	Company wide

PILLAR  
DEMONSTRATING ENVIRONMENTAL RESPONSIBILITY

Material Issue	Issue Boundary (Internal/external) Where do the impacts occur?	Who is the issue material to?	Where is the issue most material?
Land and Biodiversity	Internal/ external	<ul style="list-style-type: none"> <li>• Government (regulators)</li> <li>• Communities</li> <li>• NGOs/civil society</li> </ul>	Ambatovy and Moa
Water	Internal/ external	<ul style="list-style-type: none"> <li>• Government</li> <li>• Communities</li> <li>• NGOs/civil society</li> </ul>	Company wide
Environmental Liabilities, Closure and Reclamation	Internal/ external	<ul style="list-style-type: none"> <li>• Government (regulators)</li> <li>• Financial community</li> <li>• Communities</li> <li>• NGOs/civil society</li> </ul>	Company wide
Tailings Management	Internal/ external	<ul style="list-style-type: none"> <li>• Government</li> <li>• Communities</li> <li>• NGOs/civil society</li> <li>• Financial community</li> </ul>	Ambatovy and Moa
Energy and Climate Change	Internal/ external	<ul style="list-style-type: none"> <li>• Government (regulators)</li> <li>• Financial community</li> <li>• Communities</li> <li>• NGOs/civil society</li> </ul>	Company wide



PILLAR  
**ENGAGING STAKEHOLDERS AND BENEFITTING COMMUNITIES**

Material Issue	Issue Boundary (Internal/external) Where do the impacts occur?	Who is the issue material to?	Where is the issue most material?
Stakeholder Engagement	Internal/ external	<ul style="list-style-type: none"> <li>• Communities</li> <li>• Government</li> <li>• NGOs/civil society</li> </ul>	Company wide
Community Development	Internal/ external	<ul style="list-style-type: none"> <li>• Communities</li> <li>• Government</li> <li>• NGOs/civil society</li> </ul>	Company wide (focus at Ambatovy, Moa, OGP)
Economic Benefits	Internal/ external	<ul style="list-style-type: none"> <li>• Employees/contractors</li> <li>• Customers/suppliers</li> <li>• Communities</li> <li>• Government</li> </ul>	Company wide

Most material aspects did not change from our last assessment in 2012. A few key exceptions include:

- The materiality of economic performance, always a central aspect for any business, increased because of the significant decline in the price of the products we produce (namely, nickel, cobalt, oil and electricity).
- Site security and environmental liabilities have been identified as important aspects for inclusion within the sustainability management system, due to evolving stakeholder expectations and site-level risks for Sherritt.
- Climate change is included as a material aspect, given increasing societal concern, evolving business focus on this issue, and efforts of governments to address and regulate this issue.

Commentary on a broader set of material issues and risk factors that affect Sherritt – including U.S. sanctions on Cuba – can be found in our [2016 Annual Information Form](#).

## SUSTAINABLE DEVELOPMENT GOALS

The United Nations' Sustainable Development Goals (SDGs) consist of 17 ambitious targets to address global issues, and to ensure a sustainable and resilient future for the world by 2030. The success of the SDGs depends on the participation of a range of actors – governments, corporations, communities and non-governmental organizations.

The nature of the work of the natural resources sector has social, economic and environmental impacts on the jurisdictions where projects and operations are located. As a responsible company, Sherritt seeks out opportunities not only to mitigate and, where possible, avoid its impacts, but also to make a positive contribution to its host countries on both a national and community level. Highlighting how our processing requirements and end products contribute to the SDGs is important; however, so is taking responsibility for and acknowledging the impacts of our activities on the broader development agenda. (To better understand the sustainability issues and challenges most material to Sherritt, please review our [materiality analysis](#).)

The chart below contains examples of Sherritt's progress against each of the 17 SDGs.



### WHAT IT MEANS

Sherritt operates in developing countries, including Madagascar, where over 90% of the population lives on under \$2 a day, according to the World Bank. As a sizeable employer in Canada, Cuba and Madagascar, we have an opportunity – through local employment and procurement, community investment and training – to contribute significantly to poverty alleviation in our host jurisdictions.

### NO POVERTY

#### End poverty in all its forms everywhere

*Examples of Sherritt's efforts:*

As the construction phase of the Ambatovy nickel operation in Madagascar was coming to an end a few years ago, we established the Assistance Initiative for Demobilized Employees (AIDE) Program to support demobilized construction workers through their transition to new vocations, allowing us to support socio-economic development and mitigate the risk of protests and strikes following the expiration of their contracts. Nearly 20,000 construction workers benefitted from monthly payments from Ambatovy over an average period of 11 months per worker (depending on the length of their contracts). We also set up redeployment offices for finding new jobs and training centres for building new skills. This retrenchment program has been recognized as a best practice internationally and has been presented as a case study by several organizations.

Ten years ago, Sherritt established what we understand to be the first community investment program of its kind in Cuba. Over the years, we have provided millions of dollars' worth of support for projects relating to public health and safety, transportation, sanitation, education and culture in communities near our operations. Sherritt works with local and provincial governments in Cuba to develop an annual community investment plan for purchasing equipment and goods to meet local needs and align with the national development priorities, known in [Spanish](#) as the *Lineamientos*, and other planning priorities.



## WHAT IT MEANS

Providing infrastructure for food production and trade in our host jurisdictions is one way to alleviate food shortages and improve access to nutrition. A nourished local population can broadly support community development aspirations, as well as provide Sherritt with a strong base for local employment and contribute to stable company-community relations.

### ZERO HUNGER

#### End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

*Examples of Sherritt's efforts:*

Inaugurated in 2010, the Agricultural Training Centre in Madagascar helps former construction workers and the local population to improve their skills and knowledge in small-scale agribusiness. The Centre offers courses in agriculture, livestock, accounting and business administration. More than 18,000 people from local communities have been trained. Ambatovy also helped launch a Food Distribution Centre (FDC), which obtains produce from local small-scale farmers. Ambatovy purchases much of the food it needs to feed its workforce from the FDC, which also serves markets beyond our mining operation.

Sherritt contributed to the construction of a community garden near our operation in Moa, Cuba, to supply [the community](#) with fresh produce. In addition, Sherritt's community investment program in Cuba has provided several refrigeration units to public institutions, including schools, universities and hospitals, to preserve much-needed food for students and patients.



## WHAT IT MEANS

Healthy, happy communities and employees make for a successful and stable operating environment. Sherritt has a responsibility as a local employer in Canada, Madagascar and Cuba to ensure employees return home from work safely every day.

### GOOD HEALTH AND WELL-BEING

#### Ensure healthy lives and promote well-being for all, at all ages

*Examples of Sherritt's efforts:*

Through our community investment program in Cuba, we have donated materials to reequip the main hospital in Moa with air conditioning for its neonatal unit and provided laboratory equipment for diagnostics. We also [upgraded](#) such things as water-supply infrastructure for a secondary school; the refrigeration system at a dairy; and the electrical system for the university, a baseball field, a cinema and a vegetable market.

At Ambatovy, 10 kiosks, constructed in partnership with [UNICEF](#), provide local youth along the main thoroughfares with meet-up points for gathering, exchanging information and providing each other with emotional and social support. The kiosks are managed by 20 peer educators, who are also trained to provide information to local youth regarding HIV/AIDS and sexually transmitted infections. In 2015, all the kiosks were transferred to the government's Regional Direction of Youth, which supports and coaches peer [educators](#).



**WHAT IT MEANS**

On a global basis, Sherritt invests in the ongoing education and skills training of its workforce, as well as potential employees and contractors that represent the future employment pipeline in its host jurisdictions. Supporting mining-relevant education in younger generations, with a particular focus on technical skills, is a benefit to Sherritt – and the entire industry – overall.

**QUALITY EDUCATION**

**Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**

*Examples of Sherritt's efforts:*

Sherritt established a technical training program in Cuba, through a partnership with the [Northern Alberta Institute of Technology \(NAIT\)](#) and the [Southern Alberta Institute of Technology](#), whereby our Cuban workers, who would normally not have access to this type of training, could obtain accreditation as instrumentation technicians, millwrights or electricians – equivalent to a certified tradesperson. This program has trained hundreds. Sherritt also donated \$1 million to NAIT for the construction of the Centre for Millwright Technology near Edmonton, which is located near the Fort Saskatchewan refinery. Thousands of students have benefitted from the Centre.

In partnership with [UNICEF](#), [Ambatovy](#) constructed four eco-friendly schools in 2013, and the first environmental education program started in 2014. A local non-governmental organization is now operating the schools, teaching environmental and conservation courses to students in the surrounding area. More than a thousand students have benefitted from this program.



**WHAT IT MEANS**

Sherritt is committed to advancing stronger gender representation at the board and senior management levels. We are also working to develop, train and promote women from diverse backgrounds throughout the company.

**GENDER EQUALITY**

**Achieve gender equality and empower all women and girls**

*Examples of Sherritt's efforts:*

Our President and CEO, David Pathe, is a voluntary member of the [30% Club Canada](#), whose goal is to ensure 30% of board seats are held by women by 2019. In 2016, Sherritt's board was composed of 25% women, a proportion that is above the industry average.

Sherritt has worked with [UNICEF](#) to advance children's rights, including addressing the sexual exploitation of young girls in Madagascar. Our efforts in this regard are considered international best practice and are often cited by UNICEF in [case studies](#). We continue to collaborate with UNICEF on gender and other issues.



6 CLEAN WATER AND SANITATION



**WHAT IT MEANS**

Water is essential for life, but is also a requirement for natural resource extraction and processing activities. Sherritt works hard at water management and ensuring local communities are healthy. The nickel we produce is used as a key input for sustainable water storage and distribution infrastructure around the world.

**CLEAN WATER AND SANITATION**

**Ensure availability and sustainable management of water and sanitation for all**

*Examples of Sherritt's efforts:*

Through our community support initiatives in Madagascar and Cuba, Sherritt has contributed to municipal sanitation projects involving water distribution as well as garbage collection and disposal.

One of Sherritt's end products, nickel, has anti-corrosive and highly durable characteristics. It is used to make stainless steel for infrastructure – such as pipes, dams, valves and pumps – that is essential for long-lasting water collection, treatment, storage and distribution systems in both the developed and developing world.

7 AFFORDABLE AND CLEAN ENERGY



**WHAT IT MEANS**

Sherritt seeks out opportunities not only to produce clean energy that supports our host countries' needs, but also to lessen the impacts of our energy use.

**AFFORDABLE AND CLEAN ENERGY**

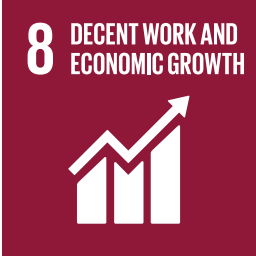
**Ensure access to affordable, reliable, sustainable and modern energy for all**

*Examples of Sherritt's efforts:*

Sherritt is the largest independent power producer in Cuba, with approximately 500 megawatts of capacity, representing 15% of energy available on the island's grid. We operate a joint venture with the Cuban authorities. At certain facilities, we employ an environmentally friendly approach that uses waste exhaust heat to generate steam and produce electricity. As a result, the generating units that employ this approach have been granted [Clean Development Mechanism](#) status under the Kyoto Protocol by the United Nations Framework Convention on Climate Change.

We are also the largest independent oil producer in Cuba, and sell all of our production back to the Cuban state to support the country's domestic energy needs.

At Ambatovy, we have begun investing in electric vehicles to ferry around employees at the processing plant. This investment reduces diesel emissions, maximizes the excess energy we produce on site, and decreases overall maintenance costs.



**WHAT IT MEANS**

Sharing the economic benefits of our activities with employees, host communities and countries, business partners and investors is not only responsible but essential to our growth strategy.

**DECENT WORK AND ECONOMIC GROWTH**

**Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all**

*Examples of Sherritt's efforts:*

Our award-winning Ambatovy Local Business Initiative provides support to local businesses and entrepreneurs in Madagascar through training, mentoring and capacity-building programs. By maximizing local procurement, Ambatovy provides a much-needed impetus to the Malagasy economy and entrepreneurs. Ambatovy awards hundreds of millions of dollars each year in local contracts; it has registered more than 4,000 local suppliers in its supplier database; and it has provided agricultural training to over 18,000 members of nearby communities (about half of whom are women), including demobilized workers, farmers and enterprising individuals interested in agricultural production. In 2016, 868 local suppliers provided Ambatovy with goods and services across 40 sectors, including: construction, transportation, cleaning and catering services, among others.

The Fort Saskatchewan site has always enjoyed constructive relations with our unionized employees. This relationship has endured more than 60 years without a labour disruption. Many say the foundation of positive management-worker relations at Sherritt's Canadian operation goes back to the 1940s, when the company moved the entire mining town of Sherridon, Manitoba, some 250 km north to Lynn Lake, ensuring workers not only kept their jobs, but also their homes, neighbours and friends as well.



**WHAT IT MEANS**

Sherritt has a rich history of technological innovation, and the metals we produce play an important role in the supply chain for sustainable products and infrastructure.

**INDUSTRY, INNOVATION AND INFRASTRUCTURE**

**Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**

*Examples of Sherritt's efforts:*

Sherritt has a distinguished history in technological innovation. Its research and development efforts began in 1948, when company researchers discovered a new hydrometallurgical process for refining metals. Sherritt's technologies team has since received thousands of patents for its innovative work, which has been applied to more than 35 mining operations around the world.

The two metals that Sherritt produces, nickel and cobalt, both have durable characteristics that are essential for sustainable water distribution, energy production, batteries and much more.

10 REDUCED INEQUALITIES



**WHAT IT MEANS**

Reducing poverty through local employment and supporting trade within our host communities and countries are two important ways that we – and the broader natural resources sector – contribute to the reduction of inequalities on a global level.

**REDUCED INEQUALITIES**

**Reduce inequality within and among countries**

*Examples of Sherritt's efforts:*

Sherritt's [economic benefit footprint](#) is substantial. In 2016, Sherritt contributed more than \$750 million in economic benefits to host jurisdictions through local procurement, wages and benefits, payments to government and community investment.

11 SUSTAINABLE CITIES AND COMMUNITIES



**WHAT IT MEANS**

Sherritt believes in the importance of contributing to a lasting improvement in quality of life in the communities where we operate.

**SUSTAINABLE CITIES AND COMMUNITIES**

**Make cities and human settlements inclusive, safe, resilient and sustainable**

*Examples of Sherritt's efforts:*

More than 20 years ago, Sherritt was a founding member of Northeast Region Community Awareness Emergency Response, a mutual aid emergency response association whose members – including emergency management professionals, pipeline companies, chemical transporters and area municipalities – train, plan and share best practices for emergency response in Fort Saskatchewan, to ensure the community is safe and resilient in the event of an industrial emergency.

A Category 4 hurricane swept across eastern Cuba in October 2016. Thanks to Cuba's [exemplary emergency preparedness and response systems](#), including those at our operating sites, there were no serious injuries or fatalities on the island due to this extreme weather event. Sherritt has since donated \$100,000 to the [United Nations Development Programme](#) to support relief efforts in eastern Cuba.

Sherritt recognizes that developing a project can result in the need to resettle nearby communities that are within the operation's footprint – or close enough to be negatively impacted. In Madagascar, the development of Ambatovy required the resettlement of small communities and the removal of several locally owned rice fields. This resettlement and compensation effort strictly followed the International Financial Corporation's Performance Standard on [Land Acquisition and Involuntary Resettlement](#).



### WHAT IT MEANS

We are committed to responsible mining and energy production, which requires us to manage all aspects of our business sustainably and transparently over the long run.

### RESPONSIBLE CONSUMPTION AND PRODUCTION

#### Ensure sustainable consumption and production patterns

*Examples of Sherritt's efforts:*

A few years ago, we established our [sustainability framework](#), which articulates our commitments to the environment, safety and stakeholders, and sets the foundation for our minimum standards for managing these commitment areas across the company.

We align our public sustainability reporting with the [Global Reporting Initiative's G4 requirements](#). Every year, we work to improve the quality and quantity of our disclosures to provide a comprehensive characterization of our sustainability performance, including progress on meeting our long-term commitments and areas for improvement.



### WHAT IT MEANS

As heavy industry contributes to climate change on a global scale, Sherritt is taking action to reduce its greenhouse gas emissions at its operations.

### CLIMATE ACTION

#### Take urgent action to combat climate change and its impacts

*Examples of Sherritt's efforts:*

In 2003, at our jointly owned Varadero power facility in Cuba, we installed a system that uses waste exhaust heat to generate steam and produce electricity (called a combined cycle power generating unit). In 2007, this unit was granted Clean Development Mechanism status under the provisions of the Kyoto Protocol by the United Nations Framework Convention on Climate Change. We have recently built another combined cycle unit in Cuba that is eligible for this designation. Not only does this investment provide the Cuban grid with much-needed energy for the Cuban people, but it has also secured well over a million dollars' worth of carbon credits from the international market.

The recently constructed acid plant at our joint venture mining operation in Moa, Cuba, allows us to produce additional acid on site, instead of importing it. As a result, the new acid plant is expected to reduce our annual greenhouse gas emissions by approximately 100,000 tonnes per year.





## WHAT IT MEANS

Water is very important to mining and processing as an input, as a by-product, and for the transportation of goods. It is essential that we manage our impact on local waters to ensure the viability of our operations over the long term.

## LIFE BELOW WATER

### **Conserve and sustainably use the oceans, seas and marine resources for sustainable development**

*Examples of Sherritt's efforts:*

Our Ambatovy operation is located in Madagascar, a country known for its rich biodiversity. We aim to avoid environmental impacts there for even the smallest species. For example, the “Rheocles Mangoro” is a newly discovered species of endemic fish, which Sherritt identified near the mine. In their native habitat, these fish are sustained by local watersheds and protected from invasive species by natural barriers. Since 2005, Sherritt has been working to sustain these fish using innovative methods for salvaging, creating and restoring habitat, and for protection against exotic species.

In Alberta, Canada, in 2013, a breach occurred in a water containment pond at the Obed Mountain mine, which was then owned by Sherritt. The breach resulted in a significant release of mud, clay, and coal particles. Although Sherritt went on to sell this property – and its entire coal business – the company retains the ultimate responsibility for all commitments and obligations resulting from the breach, including monitoring and remediation activities and addressing Aboriginal and community concerns. Sherritt still maintains a website ([www.obed.ca](http://www.obed.ca)) to inform all stakeholders of the ongoing response effort. We feel strongly that environmental and social responsibility is measured not only by how a company mitigates the risk of a crisis, but also by how it responds to one when it occurs. The breach at Obed was unacceptable, but we are proud of our response efforts to date.



## WHAT IT MEANS

Sherritt's approach to environmental management is to avoid impacts wherever we reasonably can, and to minimize, manage and remediate those that occur.

### LIFE ON LAND

**Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss**

*Examples of Sherritt's efforts:*

Madagascar has one of the most biodiversity-rich ecosystems in the world. To ensure no net loss, and preferably a net gain, Sherritt's Ambatovy operation put in place state of the art adaptive environmental management plans that comply with the highest national and international standards, including the International Finance Corporation (IFC) Performance Standards, throughout all phases of the mining lifecycle. In 2015, Ambatovy received its environmental certificate for conforming to the IFC Performance Standards.

The [Alejandro de Humboldt National Park in Cuba](#) is a UNESCO World Heritage site particularly known for its extensive suite of endemic flora. Prior to the establishment of the Moa Joint Venture, exploration work had been conducted by another company in areas of the park that would overlap with the Joint Venture's mining lease. A few years after the Joint Venture was formed, Sherritt and its Cuban partner approached the relevant authorities to relinquish these overlapping concessions and contribute to rehabilitating the impacted areas of the park.

Over the last five years, Sherritt has received a number of prestigious environmental [awards](#), including the CIM Syncrude Award for Excellence in Sustainable Development and the Nedbank Capital Sustainable Business Award for Achievements in Biodiversity Management in Africa, among others. This recognition attests to our global leadership in this area.



## WHAT IT MEANS

Building trust, operating openly and ethically, and respecting the community are central to the way we work as a company. We seek opportunities to work with transparent and accountable institutions, as a means of advancing development and good governance in the jurisdictions where we have a presence.

## PEACE, JUSTICE AND STRONG INSTITUTIONS

**Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels**

*Examples of Sherritt's efforts:*

To operationalize our commitment to conducting activities with integrity and responsibility, we have developed and rolled out our Business Ethics Code, Anti-Corruption Policy and Human Rights Policy. Customized training takes place at all our sites to ensure there is a shared understanding of the concepts and expectations of these documents.

Sherritt is one of a small number of Canadian mining and energy companies that have formally signed on to the [Voluntary Principles on Security and Human Rights \(VPSHRs\) Initiative](#). In Madagascar, we have taken a strong leadership role in promoting the VPSHRs and in collaborating with the government, non-governmental organizations, other companies and security providers on aligning practices with the expectations of the Voluntary Principles.

At Ambatovy, we also established the Tsaratanana (Good Governance) Project, which involves working with a multi-stakeholder group to develop a credible mechanism for royalty distribution at the community level, as required by the Malagasy law for large mining investments.

17 PARTNERSHIPS FOR THE GOALS



**WHAT IT MEANS**

In all our businesses, healthy, mutually beneficial partnerships are required for us to succeed. We have a history of strong partnerships with employees, communities, host countries, investors and business partners in each of the jurisdictions where we operate.

**PARTNERSHIPS FOR THE GOALS**

**Strengthen the means of implementation and revitalize the global partnership for sustainable development**

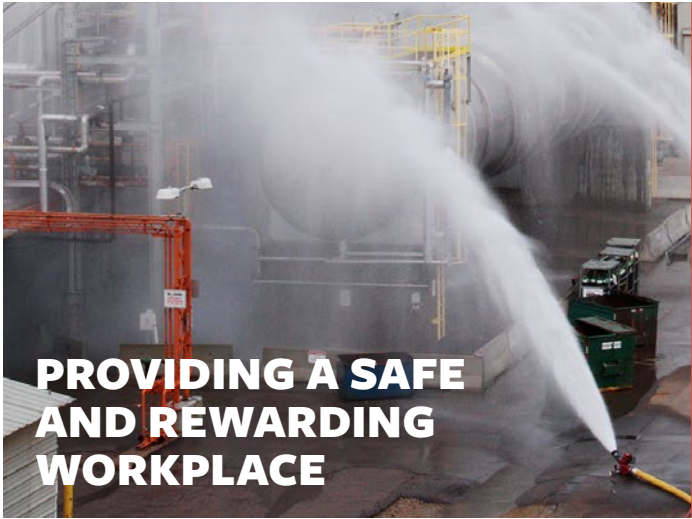
*Examples of Sherritt's efforts:*

Due to Sherritt's relatively small size, we rely on joint ventures and project financing to conduct business. We have leveraged our experience in working productively and collaboratively with our business partners to forge partnerships with a range of developmental organizations – such as WWF, Conservation International, UNICEF, Search for Common Ground, and CARE, among many others. These partnerships have helped us to maintain our social license and share the benefits of our presence with local communities.

We apply the principle of continuous improvement to our approach to stakeholder engagement. We established a multi-stakeholder process called Joint Fact Finding at Ambatovy to work with the community and local authorities to address stakeholder concerns and come to a common understanding of any disputed information in a very direct and open manner.

Sherritt will continue to report on activities related to our sustainability performance in our annual report at [sustainability.sherritt.com](http://sustainability.sherritt.com).





## PROVIDING A SAFE AND REWARDING WORKPLACE

### CASE STUDY

#### EMERGENCY PREPAREDNESS EXERCISE IN FORT SASKATCHEWAN

At Sherritt, we aim to operate safely every day. However, we also believe in the importance of training and preparation for any large-scale emergency or crisis situation at our sites.

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Sherritt's operations are built on a zero harm health and safety culture. We work hard to minimize operational risks to our workforce and nearby communities, and engage with these important stakeholders regularly on matters of safety, security and emergency response. More broadly, employee engagement and development remain top priorities in ensuring we attract and retain the people critical to our business and its success.

#### In 2016, we:

- Sadly experienced four worker fatalities as a result of a bridge collapse in Moa, and three community fatalities
- Met our total recordable injury frequency (TRIF) target of less than 0.50 injuries per 200,000 work hours and our lost time injury frequency (LTIF) target of less than 0.18 injuries per 200,000 work hours; and improved both rates over the previous year
- Achieved a full year without recording a single a lost time incident (LTI) at Ambatovy in September for the first time ever; and one year without experiencing an LTI or recordable incident at the Fort Saskatchewan site
- Recorded a 15% drop in the number of thefts across Sherritt over the previous year (see [Site Security](#) section of the report for context)
- Saw our President and CEO join the "30% Club Canada", whose goal is to ensure that at least 30% of board seats in the country are held by women by 2019
- Added "diversity and inclusion" as one of Sherritt's [Strategic Priorities](#)

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## HEALTH AND SAFETY

### MANAGEMENT APPROACH

Our health and safety management approach has historically been decentralized, with each division/operating site applying its own expertise and experience to identifying hazards and risks, implementing controls, monitoring performance, and assigning appropriate accountabilities. We are now establishing enterprise-wide standards, aligned with international best practice, as part of our commitment to continuous improvement, operational excellence and a stronger safety culture.

To clearly articulate our expectations for health and safety performance across the business, we have identified the need for a general health and safety standard, which will be based largely on guidance from the Mining Association of Canada, and specific fatality prevention standards – such as Light Vehicles, Heavy Mobile Equipment, Working at Heights, and Confined Spaces, among others – which are currently being implemented. We also have a Significant Potential Incident Standard in place. It requires tracking and specific management actions for any workplace incident that, under slightly different circumstances, could have resulted in a fatality.

The full suite of health and safety standards is being developed and implemented, in accordance with our multi-year implementation schedule.

In addition to implementing standards, we conduct [safety culture assessments](#) at our operating sites, and track a series of leading indicators designed to increase hazard awareness, improve performance and strengthen safety culture. These indicators include leader walks around sites to set the tone from the top, proactive health and safety communication activities, workplace inspections and training hours. At the corporate level, we monitor health and safety performance through regular executive reviews, peer comparisons and independent assessments.

We are working to embed these initiatives deep within the organization. Ultimately, experience has taught us that everyone must take ownership of safety and be comfortable having safety-related conversations as a matter of course in their everyday activities.

Sherritt launched an enterprise-wide Operational Excellence (OE) program in 2015. OE is a business-improvement process that focuses on team-based problem solving and process improvement, leading to meaningful results, including a safer, more efficient workplace. To date, more than 200 employees from the corporate office, Moa, Fort Saskatchewan and Ambatovy have participated in OE events, including 50 project teams focusing on areas such as logistics, maintenance and production. Examples of the types of results achieved through OE so far include:

- Rearranging the leach maintenance shop at the Fort Saskatchewan site to reduce the walking distance for millwrights undertaking pump repairs from 2.35 km per repair to 0.45 km
- Reduction of truck refuelling times at Moa to save approximately \$500,000 per year
- Identification of business improvements that could result in cost savings valued at \$24 million for Ambatovy



#### CASE STUDY

#### DRIVER TRAINING AT AMBATOVY

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#### CASE STUDY

#### SAFETY CULTURE ASSESSMENTS

PAGE 31

OE projects will continue as part of the company’s overall objective to create a safer, more efficient workplace.

**PERFORMANCE**

**Fatalities**

While we made important strides to improve our safety culture and performance in 2016, we were deeply saddened by four work-related fatalities near our mining operation in Moa in November. These fatalities were the result of a municipal bridge that collapsed while under repair. The bridge was damaged during October’s Category 4 Hurricane Matthew and is the main access point to the mine site from the port. These were the first fatalities at Moa in a decade.

As part of the corrective actions plan, site management has increased the presence of safety advisors in the field, increased safety communications and enforcement, undertaken a re-training program for all safety standards and procedures, identified additional fatal risks and systematically corrected less-safe behaviours.

*Community Fatalities*

Regrettably, in 2016 there were also three non-work-related fatalities involving community members – two in Madagascar and one in Cuba. In the first incident in Madagascar, a local villager was fatally injured while attempting to secure donated scrap wood that was being unloaded from a company truck. In the second, a local cart driver suffered fatal injuries after he lost control of his cart and collided with a company light vehicle. In Cuba, a community fatality resulted from an automobile accident that involved a company vehicle travelling along a highway. We have investigated the root causes of these incidents and as a result modified the way in which community-bound material leaves the site and is delivered, and incorporated enhanced highway driving rules and defensive driver training into Sherritt’s Light Vehicle Fatality Prevention Standard.

**Lost Time and Recordable Incidents**

In addition to the four fatalities, we reported 14 lost time incidents (which are recorded when a worker misses at least one shift following a workplace injury) and 31 recordable incidents (which include injuries resulting in death, lost time, restricted work, medical treatment beyond first aid, or loss of consciousness) across the company.

Our overall safety performance in 2016 was solid and achieved improvements over 2015, with a lost time incident index (total number of lost time injuries per 200,000 work hours) of 0.11 (compared to 0.14 in 2015) and a total recordable incident index (total number of recordable injuries per 200,000 work hours) of 0.25 (compared to 0.41 in 2015), both of which are peer and industry leading results.

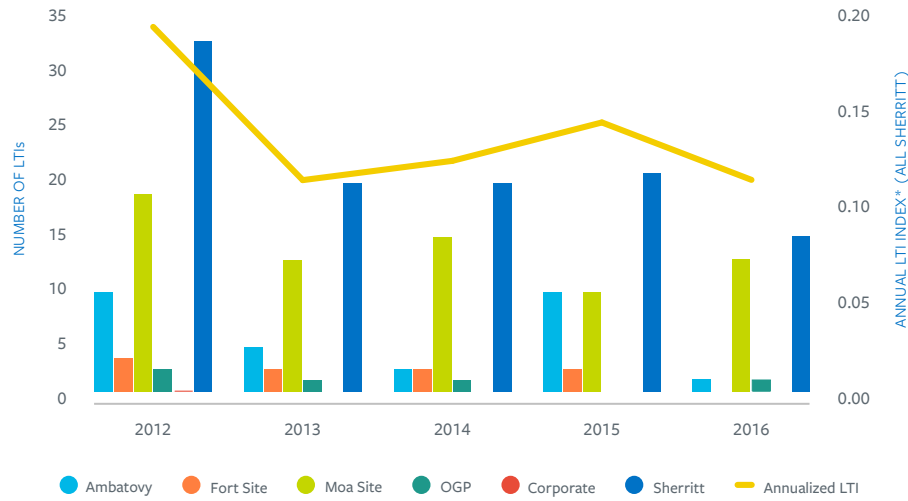


**CASE STUDY**  
**ALIGNING WITH LEADING EXTERNAL SAFETY STANDARDS**  
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**“We can’t become complacent on safety performance. We have to strive to be better every day.”**

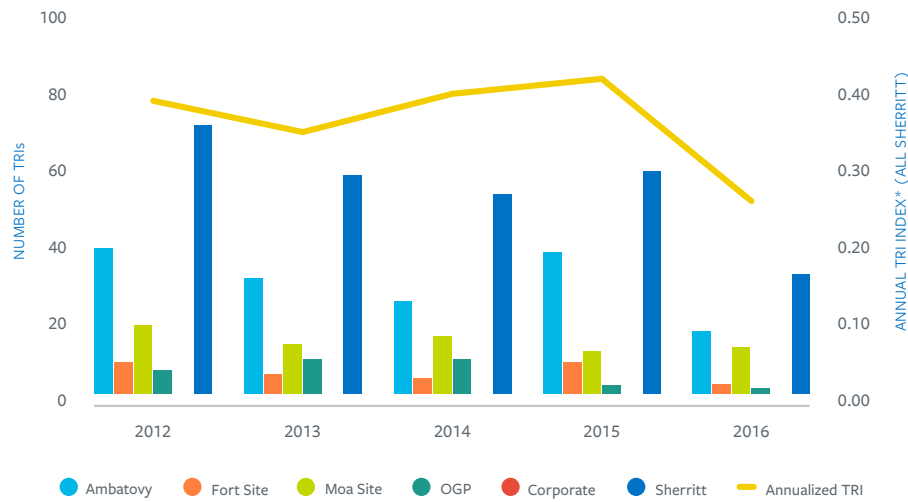
**– David Pathe, President and Chief Executive Officer**

**LOST TIME INCIDENT (LTI) INDEX**



\* LTI index = # LTI \* 200,000/SUM (exposure hours for the year)

**TOTAL RECORDABLE INCIDENT (TRI) INDEX**



\* TRI rate = # TRI \* 200,000/SUM (exposure hours for the year)

During 2016, both Ambatovy and Fort Saskatchewan went LTI and TRI free for a 12-month period, which is an incredible milestone. Much of this success can be credited to our focus on safety and continuous improvement in behaviours and performance at the two sites, thanks to a greater focus on leadership and [safety culture assessments](#).

**Significant Potential Incidents**

2016 was the first full year that we recorded significant potential incidents (SPIs) – defined as actual or near-hit incidents that, under different circumstances, could have reasonably resulted in at least one fatality – in conformance with our standard, which had been developed in 2015. There were 29 SPIs reported over the course of the

year. They were investigated in the same manner as fatalities. Detailed investigations to identify the cause(s) of each incident were completed, and actions to prevent recurrence were identified and implemented. The most common types of SPIs in 2016 related to light vehicles, heavy mobile equipment and working at heights. As a result, we are focusing on efforts to identify and strengthen critical controls in these areas at all our operating sites. Examples of specific SPIs from the year include:

- A light vehicle that was travelling suffered brake failure, and the driver had to intentionally crash to stop.
- An unmanned 60-tonne crane rolled from its parked position through a barrier and into a canal.
- An employee using a telehandler to deliver scaffolding moved backwards in an elevated position and snagged an overhead telecommunication wire.
- An employee conducted repairs on a roof without proper fall protection.
- A steam coil rolled off a boom truck, narrowly missing a group of workers.
- A pulley on a feed pump failed catastrophically, launching pieces 200 m in all directions.



CASE STUDY

## DRIVER TRAINING AT AMBATOVY

Ambatovy continues to ramp up production at the mine. To ensure we have the right tools for the job, Ambatovy purchased additional heavy equipment, including: Caterpillar 777G trucks, Caterpillar 6020B large excavators and Caterpillar 745C trucks. To operate the equipment, Ambatovy is recruiting additional operations and maintenance personnel.

Training is an integral part of our commitment to health and safety. Recognizing this, Ambatovy purchased a mobile equipment simulator for training mobile equipment operators at the mine site. Effective training is critical for safe and efficient production, but also supports proper care of costly mobile equipment. The simulator is the first and only one of its kind in Madagascar. It is built into a sea container and includes high-performance computers, software, projectors, screens and interchangeable mobile equipment scenarios, which simulate the mining environment and a number of conditions and events that an operator may face on the job.

Beyond giving operators first-hand experience driving trucks in various situations in a safe environment, the simulator contributes to the goal of improved productivity through a high-performing workforce – one of the key factors in achieving organizational effectiveness across the business.





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**Safety culture assessments provided valuable insights into factors that contribute to the safety culture at each site, including: employee sentiment towards the company, accountability for safety at the line-management level, leadership interactions in the field, and control of critical risks.**

#### CASE STUDY

## SAFETY CULTURE ASSESSMENTS

As a result of the four fatalities in 2015, management introduced a strategic focus on fatality prevention and commissioned an independent external assessment of the safety culture at each operating site.

The assessments provided valuable insights into factors that contribute to the safety culture at each site: employee sentiment towards the company, accountability for safety at the line-management level, leadership interactions in the field and control of critical risks. A key learning was that most safety systems and tools are similar around the world. Safety culture comes from the leaders.

Some common findings include: senior leaders have not been role modelling the desired behaviours; there is some confusion over what safety work should be done by various roles; capability gaps exist with front-line leaders; there is a sense of comfort with the status quo; management of low-probability/high-consequence events can be improved; and simple hazard-assessment and communication tools are inconsistently used.

In response, each site has developed an action plan to drive safety culture improvements. Actions include: role modelling safety behaviours by leaders; clarifying authorities and accountabilities; improving governance programs; conducting leadership training; requiring that leaders spend more time in the field; increasing the focus on significant potential incidents; and improving usage of hazard-assessment tools.



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**Good management practices can be applied in any industrial environment, and Oil & Gas and Power has made good progress in aligning its practices with the Towards Sustainable Mining Safety and Health Protocol.**

**CASE STUDY**

## **ALIGNING WITH LEADING EXTERNAL SAFETY STANDARDS**

As a member of the Mining Association of Canada (MAC), Sherritt adheres to MAC's [Towards Sustainable Mining \(TSM\) program](#), whose best-practice principles are integrated into the company's sustainability standards. Oil & Gas and Power (OGP) has made excellent progress in conforming to TSM's [Safety and Health Protocol](#) at its energy-production facilities in Cuba.

OGP completed a gap analysis of its practices relative to the Safety and Health Protocol in 2014, and developed a short-term action plan to address gaps and reach a B Level in TSM's grading system for protocol conformance by the end of 2015. In July 2015, OGP engaged Deloitte to verify progress and identify areas for improvement. One of the biggest challenges was documentation – although OGP had many of the required practices in place, the practices often were not formally documented. By developing new forms and checklists, OGP has been able to formalize its practices and will undergo an external verification in 2017. The goal is for OGP to achieve an "A" Level designation by year-end.

## PUBLIC SAFETY

### MANAGEMENT APPROACH

As good neighbours, it is critical to us that we ensure our operations, transportation activities and other business practices avoid unintended or adverse effects on the public. We follow the regulations of our operating jurisdictions, strive to meet the expectations of nearby communities and regularly engage and collaborate with local stakeholders on health and safety-related risk awareness and emergency preparedness.

There are natural links between public safety and effective community engagement. Through engagement, we work to understand public concerns and safety risks, evaluate steps we can take to reduce risk, help clarify misunderstandings and dispel misinformation, and, when appropriate, collaborate with communities on initiatives that make all of us safer. Through these efforts, we contribute to building a strong safety culture in the communities near our operating sites.

One of the most important ways we protect both communities and our business is through effective emergency preparedness and response planning. At our operating sites, we develop plans, grounded in scenario/risk assessments, to protect the public, the environment and infrastructure, in the event of a significant incident. We also implement actions to limit the severity of impacts, should an incident occur.

In Madagascar and Canada, Sherritt is responsible for leading emergency response efforts at its sites, while in Cuba we support our joint venture partners and the government authorities who take the lead in responding to operational emergencies. Refer to this [case study](#) for more information on the Cuban approach. Whenever possible, we coordinate closely with emergency responders in both preparedness and response activities, and we regularly conduct joint training exercises with them.

Sherritt is developing an enterprise-wide Crisis Management Standard that includes emergency response. The standard is influenced by Canadian and international practices, including the [Mining Association of Canada's Towards Sustainable Mining \(TSM\) Crisis Management Planning protocol](#), the [Incident Command System's \(ICS\) management approach](#), and the [United Nations Awareness and Preparedness of Emergencies at the Local Level \(APELL\) Programme](#).

### PERFORMANCE

#### Emergency Response Planning and Training

All operating sites have up-to-date emergency response plans in place, and conducted some form of crisis/emergency preparedness training in 2016.

Every site has established timelines to review emergency response plans and conduct training exercises at least annually, to ensure plans are up to date and applicable, and response teams are prepared.

In October, Fort Saskatchewan conducted a full-scale emergency simulation exercise, involving employees, more than 50 emergency responders, the municipality of



#### CASE STUDY

#### EMERGENCY PREVENTION AND PREPAREDNESS – CUBA'S EXPERIENCE

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#### CASE STUDY

#### EMERGENCY PREPAREDNESS EXERCISE IN FORT SASKATCHEWAN

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Fort Saskatchewan, neighbouring facilities, and the [Northeast Region Community Awareness Emergency Response association](#) (a mutual aid emergency response group). The purpose of the drill was to train employees and partners, with the intent of improving integrated response capabilities on site and regionally. [Large-scale exercises such as this one take place every five years at the Fort Saskatchewan refinery.](#)

Ambatovy provided first responder training for emergency situations at the mine site. Ambatovy also conducted a drill which simulated a public train colliding with a light vehicle near the plant site. The drill aimed at detecting unnoticed risks that are likely to aggravate an emergency situation and included participation from external organizations, including Madarail (the national rail company) and International SOS.

In Cuba, multiple training exercises occurred in 2016 at our Moa mine site, as well as our Oil & Gas and Power facility in Yumurí. Exercises such as these are part of the regular preparedness training in the event of an incident. These drills also inform any updates needed to plans.

### Post-Incident Community Support

In 2016, there were two incidents that presented a threat to the health and safety of our employees, operating sites and the surrounding communities. A Category 4 hurricane made landfall on the eastern side of Cuba in early October. Thankfully, the preparation and response actions of the Cuban Civil Defense authority and our partner, Cubaniquel, prevented fatalities and serious injuries in the country and at our site at Moa. That is a truly impressive accomplishment and demonstration of leadership, which was [commended by then-UN Secretary-General, Ban Ki-moon](#). Unfortunately, there was serious property damage, including the loss of roads, bridges and homes, especially in the hardest-hit community of Baracoa. The Moa site responded first by providing tradespeople and engineers to find solutions to the transportation challenges. For example, the hurricane caused the collapse of a bridge over the Toa River that connects the municipalities of Baracoa and Moa, leaving thousands of residents isolated. In response to a request from local authorities to develop a viable and safe means of crossing the river, a team of 32 employees from the Moa site designed and built a raft with a 40-passenger carrying capacity. The raft met all the design and safety criteria required by the local port authorities. In addition, Sherritt donated \$105,000 to the United Nations Development Programme to fund reconstruction efforts in the country and \$4,000 to the Bahamas Red Cross to support relief efforts in the Bahamas, where the company has a marketing office.

The second incident that took place in 2016 involved the collapse of a bridge near the Moa site. The bridge was damaged as a result of Hurricane Matthew. Four employees were undertaking repairs when it collapsed, resulting in their death. Internal and external investigations are [ongoing](#). Efforts are underway to collaborate with local authorities on repairing the bridge, and responding to the psychological impact of this tragedy.



CASE STUDY

ADDRESSING AGING INFRASTRUCTURE AT FORT SASKATCHEWAN

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### Stakeholder Awareness and Collaboration

Our operating sites continue to engage with local communities on risk awareness and emergency response.

In 2016, Ambatovy supported urgent needs in the communities near our operating sites and elsewhere in the country. For example, a state of emergency was declared in March for southern Madagascar due to extreme food insecurity. In response, Ambatovy, with other industrial partners, made a joint contribution of food rations.

In early 2016, an unfortunate community boating accident occurred on a river near the mine site, resulting in many fatalities. Although unrelated to our operations and employees, Ambatovy wanted to ensure a preventable accident like this would not occur again, and donated life jackets and provided training on their use to local boatmen in the area.

In addition, this year, Ambatovy rehabilitated and reequipped two health kiosks to facilitate medical aid for members of the community living near the plant and tailings management facility.

In Moa, we received approval from Cuban authorities to refurbish two public health clinics near the mine site. Construction will take place in 2017.

The Fort Saskatchewan site continued participating in key multi-stakeholder forums related to crisis and emergency preparedness. Our team there works actively with the [Northeast Region Community Awareness Emergency Response \(NRCAER\)](#) association, and participated in a [joint-training exercise in 2016](#). We also work with [Life in the Heartland](#) on building community awareness about operational risks. Throughout the year, the employees at the site met several times with local authorities and first responders to update emergency scenario plans and response procedures.

### International Recognition

Ambatovy recently received the [Green Star Award](#) for the category of Prevention and Preparedness for neutralizing 26 tonnes of ammonia that had been stored for over 30 years in the City of Toamasina (adjacent to the plant site). Approximately 4,000 people live in the immediate vicinity of the storage tank, which was not owned by Ambatovy. The award was granted jointly by the [United Nations Environment Programme](#), the [United Nations Office for the Coordination of Humanitarian Affairs](#) and [Green Cross International](#).



**Cuba's National Civil Defense, the institution responsible for disaster-relief planning, has effectively implemented a preparedness system for disasters, including hurricanes, earthquakes, fires, floods, storm surges and other possible events.**

CASE STUDY

## EMERGENCY PREVENTION AND PREPAREDNESS – CUBA'S EXPERIENCE

We have preparedness and response plans at all our sites to protect local communities, the environment and our business from emergencies. In Cuba, we work with state agencies to coordinate response planning.

Cuba is geographically situated in the path of hurricanes that can have devastating impacts. Studies indicate that more than two million of the country's 11 million people are vulnerable to disasters, such as flooding, the rupture or overflow of dams, collapsed housing or landslides. In addition, increased seismic activity has been recorded in the eastern region of the island, near the Moa mine site.

These factors have led to the accumulation of expertise in Cuba for managing hurricanes and other disasters – from preparation to response to recovery – that has been recognized by international organizations. For example, after examining Cuba's approach, [Oxfam America](#) suggests that strengthening community capacity, coordinating local actors and investing in social capital – which Cuba does significantly – are determinate factors in effectively reducing the risks of a catastrophic event.

Cuba's National Civil Defense, the institution responsible for disaster-relief planning, has effectively implemented a preparedness system for disasters, including hurricanes, earthquakes, fires, floods, storm surges and other possible events. This system includes an early-warning mechanism, which entails ensuring the correct behaviour of citizens when it comes to following instructions, preparing for evacuation and other important measures that are essential to preserving lives.

The success of Cuba's disaster preparation and mitigation efforts is confirmed by results. While material losses have been high, the number of casualties has been minimal (e.g., in November 2001, five people died in Hurricane Michelle, which was the most powerful storm to hit the island since 1944), largely due to the well-coordinated efforts of National Civil Defense leadership, the Ministry of Public Health, local government institutions, and local and national media. Educating the public about hurricanes is an ongoing priority, with TV programming, national drills, workshops, seminars, instruction and competitions for schoolchildren, and, for first responders, continuing reviews and procedural updates.

This was underscored during 2016's Category 4 Hurricane Matthew, which made landfall on the eastern side of Cuba in October. The response by the Cuban Civil Defense in the prevention of loss of life was commended by then-UN Secretary-General, Ban Ki-moon.



The Cuban system of preparation and evacuation is based on a few fundamental principles, namely:

- Citizen engagement – participation of civilians in preparing for natural disasters through training and education
- Coordination – disaster-relief plans are crafted with the participation of government leaders, civilian defence personnel, community organizations and local political leaders
- Maintaining social services – Cuba provides vital resources so that hospitals, schools and other institutions remain open during a natural disaster
- Vulnerability identification – each municipality identifies citizens and infrastructure deemed vulnerable, thus easing the evacuation process
- Protecting/assuring property – the Cuban government helps citizens protect personal items during evacuations and ensures that damaged property will be replaced at no cost

These factors have helped ensure that our mining and energy businesses in Cuba operate in an environment where emergency response capacity is well developed and well integrated into the risks facing the most vulnerable members of the community across the island.





CASE STUDY

## EMERGENCY PREPAREDNESS EXERCISE IN FORT SASKATCHEWAN

At Sherritt, we aim to operate safely every day. However, we also believe in the importance of training and preparation for any large-scale emergency or crisis situation at our sites.

In October 2016, the Fort Saskatchewan site's emergency preparedness was tested using a scenario of significant magnitude that required full participation from the entire workforce, as well as representatives from Sherritt's corporate office. The exercise also included mutual-aid partners like the Northeast Region Community Awareness Emergency Response association, first responders, neighbouring industrial sites, regulators, and local media.

All targeted objectives of the exercise were achieved in a four-hour timeframe and a number of new aspects were evaluated as part of the emergency response planning, including: evacuating an emergency assembly area to an off-site location; planning for and staffing an off-site location for a media scrum; managing a fatality caused by an industrial incident; and mobilizing for and managing a large-scale incident using the [Incident Command System](#). The exercise facilitated the active participation of local actors to ensure all aspects of the response system were tested and to get multi-stakeholder feedback to ensure gaps within the system were identified for improvement. Positive feedback on the site's collaborative approach was received from the local community and regulatory agencies.

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**“Sherritt has a comprehensive emergency management program and a long history of working with the local fire department as well as others in the region through NRCAER [Northeast Region Community Awareness Emergency Response]. Participating in exercises at industrial sites is a benefit to our firefighters, as they get familiar with a specialized response and experience how we work collaboratively with local industry for safety.”**

**- Fort Saskatchewan Fire Chief, James Clark**



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**Addressing aging infrastructure is challenging in an operating refinery, but we have been able to make significant progress thanks to a collaborative approach that leverages the knowledge of our experienced workforce.**

**CASE STUDY**

## **ADDRESSING AGING INFRASTRUCTURE AT FORT SASKATCHEWAN**

Ensuring that our Fort Saskatchewan site, which is more than 60 years old, remains a safe and sustainable operation, is an ongoing priority for Sherritt. The site was originally built in 1954, and then expanded with fertilizer facilities in 1965. Its infrastructure has begun to reach end-of-life and will require replacement and refurbishment. When we formed the Moa Joint Venture with our Cuban partners in 1994, the long-term viability of the site became more certain than in previous years, allowing us to begin a multi-year program to plan and execute infrastructure-replacement projects.

We started this program in the mid-1990s, focusing first on aging electrical infrastructure (transformers, motor control centres and cabling). As this risk was addressed fairly comprehensively, focus shifted to structural systems, such as pipe racks. More recently, we embarked on an ambitious effort to repair or replace structural steel in buildings and conveyors that have reached end-of-life. This work is challenging to complete in an operating refinery, but we have been able to make significant progress thanks to a collaborative approach that leverages the knowledge of our experienced workforce.

Under the leadership of our lead structural program engineer, we have external engineering, inspection and construction contractors working very closely with our operations and maintenance personnel on the planning of each project to ensure that it can be conducted safely and with minimal direct impact to operations. Given the challenges of the current commodity price environment, work needs to be prioritized, but we remain very committed to progressing projects that are critical to the safety of our employees, the community and the environment – and to the sustainable operation of the refinery.

## SITE SECURITY

### MANAGEMENT APPROACH

We are committed to safeguarding our people, assets, reputation and the environment, while respecting the rights of the public. We have an enterprise-wide policy that outlines our principles for creating a safe and secure business environment and for conducting security operations in compliance with local, national and international legal requirements, security standards and law enforcement principles.

Our management approach to site security involves identifying, understanding and minimizing security threats and risks; working with local law enforcement authorities to respond appropriately to security incidents; investigating incidents and complaints and taking actions to minimize the probability of recurrence; and implementing relevant international principles, including the [Voluntary Principles on Security and Human Rights \(VPSHRs\)](#).

We are a member of the Voluntary Principles Initiative. Our decision to formally join the Initiative was based on our investment in Madagascar, a country with governance concerns, high rates of poverty and potential for community-company conflict. To mitigate these risks, we wanted to formally align our policies and Ambatovy's security operations with the highest international standard for security and human rights. We have an enterprise-wide security policy and management system for meeting the requirements of the Voluntary Principles. The system – which supports flexible application to account for the disparate risks and realities of each of our operating environments – is based on the following procedures for governing our behaviour and response to different security incidents:

- Entering agreements with private security service providers
- Entering agreements with public security forces
- Reporting and investigation of security-related incidents
- Use of force
- Protection of providers of confidential information
- Apprehension and transfer of suspects to public custody

Ambatovy and Fort Saskatchewan have implemented most of the Voluntary Principles requirements, and the other divisions/operating sites will endeavour to address gaps over the next few years. Application in Cuba requires a more nuanced and phased approach, including familiarizing our joint venture partners and the Cuban government with the Voluntary Principles before determining how best to move forward.

Our operating sites employ full-time and contract security personnel. We believe that competence and training are the most important elements of effective security management and we evaluate all personnel carefully before selecting them for security detail. To ensure that our interactions with the public are respectful, we provide values- and expectations-based training, including security and human rights training, to our security personnel. At Ambatovy, we have a memorandum of understanding in place with the public security force and require security and human rights training for public security officials who patrol our sites.



### CASE STUDY

#### IMPLEMENTING THE VOLUNTARY PRINCIPLES IN MADAGASCAR

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## PERFORMANCE

### Security Incidents

In 2016, the theft of fuel and other supplies at Ambatovy was the only noteworthy security concern across Sherritt. Ambatovy did, however, record a 24% decrease – from 143 to 109 – in the number of thefts during the year compared to 2015; and only 12 were recorded in the last quarter of 2016. Ambatovy attributes this positive trend to adjustments made to its approach to private security management and surveillance.

Our operations in Cuba and Canada – two jurisdictions with well-established systems of governance – did not record any significant security incidents in 2016. Across the entire company, Sherritt experienced a 15% decrease in the number of incidents of theft during the year, compared to 2015.

### Security and Human Rights

In 2016, there were no security incidents involving allegations or claims of human rights' abuse anywhere across Sherritt. Ambatovy's security and human rights training results remained comparable to 2015: 75% of full-time security personnel, 90% of contract security personnel, and 100% of public security officials based near our operations were trained. Throughout the year, Ambatovy also participated in security- and human rights-related workshops, training sessions and awareness-building events with other members of the Voluntary Principles Initiative, including Rio Tinto, Search for Common Ground, and the British and American governments. Learn more about Ambatovy's efforts to conform to the Voluntary Principles on Security and Human Rights (VPSHR) in this [case study](#).

At Fort Saskatchewan, security officers continued to receive basic human rights training through the provincial licensing process in Alberta. The site also trained 100% of its security personnel on the Voluntary Principles, as well as private security contractors and emergency services personnel. Sherritt also engaged in discussions with security representatives from a nearby Shell Canada facility to explore opportunities to collaborate on VPSHR-related training and awareness-building initiatives. Discussions will continue in 2017.

In addition, Sherritt began engaging with security personnel at Moa on use-of-force training, community relations, and other site-level security considerations that relate to the Voluntary Principles.

Throughout the year, Sherritt also developed standardized tools for conducting a site-level gap analysis against the company's Security and Human Rights Standard and implementing plans to address identified gaps. These tools were rolled out to the sites as part of Sherritt's broader Sustainability Framework Implementation Plan for designing and implementing company-wide minimum standards across sustainability-related functions, including security.

Our 2016 annual report to the Voluntary Principles on Security and Human Rights is available [online](#).



**Ambatovy has incorporated Voluntary Principles on Security and Human Rights (VPSHR)–related requirements into its agreements with both private and public security providers. Such requirements include pre-employment screening and comprehensive training on security and human rights and the use of force.**

CASE STUDY

## IMPLEMENTING THE VOLUNTARY PRINCIPLES IN MADAGASCAR

At Ambatovy, we began to implement the [Voluntary Principles on Security and Human Rights \(VPSHR\)](#) in 2009. Since then, Ambatovy has taken a series of proactive steps to bring the site into greater conformance with the VPSHR. In 2012 and 2013, Ambatovy conducted third-party rights risk assessments that mapped out human rights– and security-related risks to both our company and our stakeholders. The results of the risk assessments have been used to strengthen existing policies and procedures as well as to develop new systems and programs to prevent and mitigate the identified risks.

Ambatovy has incorporated VPSHR-related requirements into its agreements with both private and public security providers. Such requirements include pre-employment screening and comprehensive training on security and human rights and the use of force.

Ambatovy has partnered with various international organizations, including the [International Committee of the Red Cross](#) and the French Embassy’s gendarmerie, to facilitate training for public and private security providers. Such training has included a five-day seminar on the VPSHR with representatives from Madagascar’s army, gendarmerie, police, judiciary, the National Independent Anti-Corruption Office, the Chiefs of Districts of Toamasina, and Ambatovy’s private security providers.

At the national level, Ambatovy works with other Voluntary Principles Initiative member companies and governments to promote the VPSHR with the Malagasy government. Ambatovy has also hosted a symposium for the diplomatic, international business and security communities on the promotion of and respect for human rights.

In 2016, Ambatovy and other Madagascar-based members of the Voluntary Principles Initiative – such as Rio Tinto and the non-governmental organization Search for Common Ground – participated in an initiative sponsored by the British embassy to promote good governance and human rights in the extractive sector. The six-month initiative was launched with the participation of the British Ambassador, the U.S. Ambassador, and Madagascar’s Minister of Mines. It focused on the implementation of the VPSHR and the UN Guiding Principles on Business and Human Rights and included joint trainings and high-level roundtable discussions.

In November, Ambatovy also signed an umbrella agreement with the regional authorities around its operations and the United Nations System in Madagascar to work together to contribute to the social and economic development priorities of the regions, including the promotion and integration of the company’s commitment to human rights–related principles – such as the VPSHR, among others – in order to effectively analyze and address human rights risks.

For more information on Ambatovy’s efforts, you can find Sherritt’s 2016 annual report to the Voluntary Principles on Security and Human Rights [online](#).



## EMPLOYEE RELATIONS

### MANAGEMENT APPROACH

Our business cannot operate and thrive without a dedicated, experienced and engaged workforce. We are committed to listening to and understanding the needs and challenges of our employees; taking action to improve the workplace; and supporting employees in reaching their potential. (For the purpose of this report, employee relations include employee engagement, talent development, labour rights, workplace diversity, and protection against workplace discrimination and harassment.)

Effective and regular two-way communication with employees is the foundation of our employee relations programs. Every two years, we conduct an employee survey to evaluate engagement across the business. Questions touch on leadership, culture, behaviours, professional development, and communication, among other areas. Senior managers in the corporate office and divisions are held accountable for implementing plans to address key findings.

Ensuring the right programs are in place to support employee development at all levels is crucial for Sherritt's long-term success and succession planning. In spite of the challenging commodity price environment, we remain committed to employee training and development. We provide a range of technical, management and leadership training in Canada, Cuba and Madagascar. Whenever possible, we leverage opportunities to bring different groups together to build cross-organizational networks and strengthen our shared values and culture.

Our compensation programs are aligned with [Our Purpose and Our Promises](#), fostering a company-wide culture of accountability and pay-for-performance compensation. All salaried employees are eligible for an annual short-term incentive award expressed as a percentage of their base salary. The award is based on company-wide, divisional and individual performance, and the amounts vary depending on the annual performance of each component. Performance goals are established at the beginning of the year, and are assessed quantitatively and qualitatively. Organizational performance is communicated quarterly, and each manager is accountable for providing individual performance feedback to immediate team members.

Across our company, we have both unionized and non-unionized workforces. We recognize and encourage the right to engage in free association and collective bargaining. As with all of our relationships, we strive for productive and mutually beneficial outcomes in our discussions with employees and organized labour representatives. When labour grievances do occur, we investigate and work to reach an acceptable solution for all parties concerned. In certain cases, we may opt for third-party arbitration. Once grievances have been resolved, the management team evaluates all of the issues that were raised and determines what process improvements, if any, can be made to ensure we learn from each one.

We have a zero-tolerance policy for workplace discrimination and discrete policies on human rights, business ethics and diversity that meet legal requirements and best practices. We are committed to continuous improvement in these areas, with

**“Although our immediate priorities focus on lowering costs and strengthening our balance sheet, we need to continue targeted hiring and development to give opportunities to the best talent out there. Our people will ensure we succeed well into the future. That’s why we are strengthening our approach to diversity and inclusion.”**

**– David Pathe, President and Chief Executive Officer**

a growing focus on diversity and inclusion. In Cuba, all national workers are hired through an employment agency and can report any issues of discrimination. The agency will undertake an investigation in conjunction with management. Any actions taken are governed by the same types of standards that would apply in Canada.

### PERFORMANCE

#### Employee Engagement

Sherritt conducted an employee engagement survey in 2015. Throughout 2016, we focused on implementing actions identified as our greatest opportunity for improvement, including: developing leadership capability, performance management, and recognition of employee achievements, communication and collaboration.

In 2016, we also conducted a pulse employee survey to measure the effectiveness of communication and action plans resulting from the 2015 survey. Eighty-two percent of employees indicated that they had received communication about the survey results and 56% said they had seen evidence of progress. Our next full employee engagement survey will take place in early 2017.

#### Organized Labour, Grievances and Strike Action

Approximately 6% of Sherritt's employee base is unionized. At our Fort Saskatchewan site, about half of employees are represented by Unifor Local 530A. (Sherritt and Unifor have had an effective partnership for more than 60 years without a labour interruption.) In March 2016, the existing agreement expired and the company and union entered into collective bargaining. The new agreement was ratified in November and has a three-year term. A process has begun at Ambatovy, which has only been operating for a few years, to put collective-bargaining agreements in place with elected employee representatives. In Cuba, all organized labour considerations are mandated by the Cuban state and many of the systems and tools that are common in other jurisdictions, including collective bargaining, are not employed there.

Our Fort Saskatchewan site received 18 grievances relating to labour practices in 2016, the same number as last year. Half of the 2016 grievances were resolved during the calendar year and those that were not will be managed in accordance with the procedures set out in the collective agreement.

At Ambatovy, seven grievances relating to working conditions were reported in 2016, an increase over the two that were filed in 2015. Three cases related to requests for salary increases, two were complaints against direct supervisors, and the other two involved harassment claims that were eventually determined to be invalid. All seven were addressed and resolved during the calendar year.

There were no work stoppages as a result of labour unrest in 2016.



## Workplace Diversity

	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate	Total Sherritt
Full-time non-supervisory (total)	2,597	525	1,822	572	27	5,543
Men	2,256	439	1,692	492	12	4,891
Women	341	86	130	80	15	652
Part-time non-supervisory (total)	0	15	0	2	2	19
Men	0	9	0	1	1	11
Women	0	6	0	1	1	8
Supervisors (total)	511	84	110	75	23	803
Men	454	69	103	66	15	707
Women	57	15	7	9	8	96
Contractors (total)	0	0	1	6	4	11
Men	0	0	1	6	2	9
Women	0	0	0	0	2	2

Note: In the above table, “Contractors” include only long-term positions hired directly by Sherritt; they do not account for supplier personnel working on site.

1. Fort Saskatchewan tally includes our Commercial and Technologies group and Bahamian sales office, which services the Moa Joint Venture.
2. Oil & Gas and Power includes Sherritt’s office in Havana.

## Employee Age

	Under 25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	Over 65
Ambatovy	2.2%	17.3%	29.4%	21.9%	13.4%	7.8%	4.2%	3.1%	0.5%	0.1%
OGP	1.1%	8.7%	7.6%	5.4%	15.2%	10.9%	15.2%	21.7%	12.0%	2.2%
Corporate	0.0%	9.6%	7.7%	15.4%	19.2%	17.3%	13.5%	9.6%	5.8%	1.9%
Moa Joint Venture	5.6%	9.6%	12.1%	7.9%	8.1%	11.3%	16.4%	18.7%	8.3%	2.0%
Commercial and Technologies	1.6%	11.6%	10.9%	14.7%	10.1%	16.3%	14.0%	11.6%	9.3%	0.0%

Note: In the above table, at this time, employee age is only tracked for the entities specified, and does not include Cuba nationals.

## PROVIDING A SAFE AND REWARDING WORKPLACE

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In 2016, we employed 758 women, representing 12% of our employee base. In our Canadian locations (Fort Saskatchewan, Calgary and Toronto), our workforce is 21% female. At Ambatovy, 13% of workers are female. In Cuba, where workers are contracted out by the state, that figure is 7%. All figures are roughly the same as the previous year.

Although our overall gender-diversity percentage is at the upper end of the mining and energy sectors, we remain committed to building a highly inclusive culture, in order to attract and retain a diverse workforce.

In 2016, our President and CEO joined the “[30% Club Canada](#)”, whose goal is to ensure that at least 30% of board seats in the country are held by women by 2019. With the recent addition of diversity and inclusion to Sherritt’s [Strategic Priorities](#), we conducted an analysis of both our internal environment and the broader industry to set a current-state baseline for diversity and inclusion at Sherritt. This analysis helped to identify challenges and opportunities, which were used to inform a two-year plan to establish the groundwork for a more diverse and inclusive work environment. The plan received senior executive and board approval. In 2017, we will begin implementation. The first phase will involve the launch of a company-wide Diversity and Inclusion Steering Committee, focus groups to better understand local culture and barriers, and a full review of policies, programs and processes to identify any potential bias.



## OPERATING ETHICALLY

### CASE STUDY

### SUPPORTING CHILDREN AND YOUTH IN MADAGASCAR

Youth involvement is one of the cornerstones of the HIV/AIDS and sexually transmitted infection awareness campaigns that Ambatovy oversees in communities near our operating sites.

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As a public company, our overarching responsibility is to operate profitably and take advantage of opportunities to grow our business. This allows us to keep our commitments to our shareholders, employees, contractors, host-country governments and communities. Making a profit, however, is not done at any cost. To ensure that we protect our business and reputation, we commit to conducting all activities with integrity and the highest standards of responsible conduct. This includes avoiding actual and perceived conflicts of interest, having zero tolerance for corruption of any form, and respecting the rights of all people with whom we interact. We do this by rigorously implementing our Business Ethics Code, Anti-Corruption Policy and Human Rights Policy, and by ensuring that we have the systems and programs in place to bring effect to our expectations.

#### In 2016, we:

- Were shortlisted to [Corporate Knights' Future 40 Responsible Corporate Leaders in Canada](#)
- Completed training of 100% of eligible Sherritt employees on anti-corruption
- Did not receive any human rights-related grievances across Sherritt
- Recorded, managed and closed seven reportable concerns related to business conduct

### IN THIS SECTION

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## ECONOMIC PERFORMANCE

### MANAGEMENT APPROACH

Global commodity prices for nickel and oil continued to be weak in 2016, affecting our financial results. The prices of nickel and oil were down by 19% and 21%, respectively, on a year-over-year basis. On a more positive note, nickel was trending upwards at the end of 2016, after two years of steady decline, and oil ended the fourth quarter up 38% compared to fourth quarter 2015 prices.

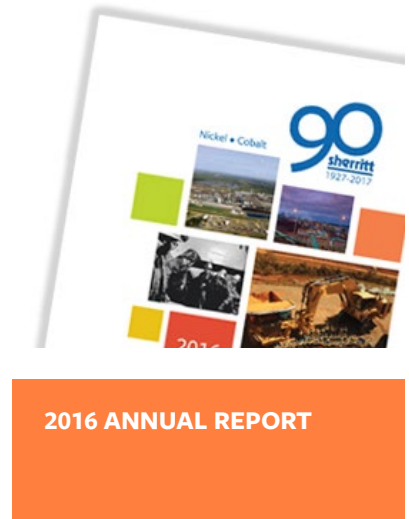
For the year ending December 31, 2016, Sherritt reported a net loss of \$378.9 million, compared to a net loss of \$2.1 billion in 2015, due mainly to the write-down of Ambatovy assets that year. Sherritt's cash position was \$309.6 million at the end of 2016.

Ultimately, Sherritt has no control over the markets, which will continue to challenge natural resource developers globally; however, in 2017 we will progress our agenda to position ourselves for long-term success by:

- Upholding global operational leadership in finished nickel laterite production
- Extending the life of our Cuban energy business
- Preserving liquidity and building balance sheet strength

### PERFORMANCE

Please refer to our [2016 Annual Report](#) for detailed information on our economic performance last year and an overview of how we plan on executing against our 2017 strategy.



## BUSINESS CONDUCT

### MANAGEMENT APPROACH

Our business conduct is a reflection of the values that are the foundation of our company. [Our Purpose and Our Promises](#) describe our guiding principles and how we expect them to be lived every day as we carry out our business. Our Business Ethics Code provides clear guidance to our workforce on what it means to act with integrity. It covers conflicts of interest, fraud and corruption, fair dealings, protection and proper use of the company’s assets, compliance with regulatory requirements, disclosure, confidentiality, and reporting mechanisms available to employees and contractors. Sherritt’s Policy Committee, made up of senior executives from various key functions, is responsible for reviewing and approving new and revised policies.

Globally, there has been a recent focus on eliminating corruption within companies, and between businesses and all levels of government. Many countries have passed anti-corruption legislation, imposing significant monetary and incarceration penalties for corrupt practices. Investigative activities by law enforcement agencies have also increased significantly, bringing effect to legislation.

As a Canadian company, we are subject to the Canadian Corruption of Foreign Public Officials Act (CFPOA), as well as anti-corruption laws in Madagascar and Cuba. The CFPOA prohibits Canadian business interests from making or offering improper payment of any kind to a foreign public official – or anyone acting on his or her behalf – where the ultimate purpose is to obtain or retain a business advantage.

Our Anti-Corruption Policy prohibits the violation of the CFPOA and other applicable anti-corruption laws. All divisions, groups and offices must undergo anti-corruption training and log all government meetings and payments. In Madagascar, governmental and commercial corruption presents a significant risk, whereas in Canada and Cuba, it does not. As such, we provide additional training, awareness-building and controls at Ambatovy, where all suppliers with standard contracts must also sign and adhere to our Anti-Corruption Policy.

Sherritt is very supportive of the transparent reporting of payments to governments. We are a Supporting Company of the [Extractive Industries Transparency Initiative \(EITI\)](#), to which we report in Madagascar. Visit this [website](#) to review EITI Madagascar’s latest report, which was published in 2015. We have also developed a process for meeting the public reporting obligations of Canada’s [Extractive Sector Transparency Measures Act \(ESTMA\)](#), the requirements of which are very similar to those of EITI. Additional commentary on transparency reporting can be found on the [Community Development page](#).



#### CASE STUDY

#### ROLLING OUT ANTI-CORRUPTION TRAINING

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#### CASE STUDY

#### AWARD FOR EXCELLENCE IN SUSTAINABLE DEVELOPMENT AT AMBATOVY

PAGE 52

**PERFORMANCE****Ethical Conduct**

In 2016, six reportable concerns were investigated and seven closed (one carried over from 2015). All were investigated internally by Internal Audit or management. These concerns mainly related to allegations of fraud within the company, such as inappropriate business relationships with vendors and fraud committed using the company's name.

Upon commencing employment with Sherritt, all employees are required to review and sign off on their understanding and acceptance of our Business Ethics Code.

**Anti-Corruption**

We updated our Anti-Corruption Policy in 2015 and held training sessions across the company to familiarize employees with the requirements and to address their questions. The training provided a valuable opportunity to clarify what constitutes corruption and conflict of interest. Trainers emphasized that the most important action an employee can take if faced with an uncomfortable situation is to ask for assistance from the person responsible for overseeing the anti-corruption program in his or her workplace.

One hundred percent of our entire eligible workforce was trained by the end of 2016. As part of the training, employees had to sign the policy to demonstrate their understanding and commitment to the principles.

In Cuba, only expatriate employees and a small number of Cuban nationals who work directly for Sherritt were required to take the training, given the nature of our joint venture relationships and our agreement with the state-run agency that provides our operations with workers.

Ambatovy began rolling out anti-corruption training to all eligible employees in October 2015, and by the end of 2015, 48% had completed the training, with the remainder completing the training in 2016. This training is now included in the onboarding process for new employees. A refresher training of the policy was provided to 65% of Ambatovy employees in 2016. Over the last few years, Ambatovy also rolled out a "train the trainer" program for suppliers to increase their awareness of the requirements of the Anti-Corruption Policy. Ambatovy trained 274 contract workers from more than 100 suppliers as part of the program. These "trainers" have gone on to train more than 8,600 contract workers on our policy. Refer to this [case study](#) for further information.

Over 2016, the policy was further updated, and employees will receive training specific to their roles in 2017, if required.

Performance commentary on transparency reporting can be found under [Community Development](#).



**All eligible Sherritt’s employees completed an interactive training module that summarizes the key points of Sherritt’s policy, together with questions regarding how to correctly respond to situations where the potential for corruption or fraud exists.**

CASE STUDY

**ROLLING OUT ANTI-CORRUPTION TRAINING**

In 2016, Sherritt continued training Sherritt employees on the updated Anti-Corruption Policy and, by the end of the year, 100% of our entire eligible workforce received anti-corruption training, and 65% of Ambatovy employees received refresher training.

Based on feedback from the 2012 training, which consisted of group presentations followed by a question-and-answer session, Sherritt used a more nuanced platform that took into account the different cultural and situational pressures facing its workforce. An interactive training module that summarizes the key points of Sherritt’s policy, together with questions regarding how to correctly respond to situations where the potential for corruption or fraud exists, was completed by all of Sherritt’s employees based in North America, as well as expatriate employees located elsewhere.

It was agreed, however, that the language and examples used in the general anti-corruption training might not be accessible for employees and contractors unfamiliar with a North American or European work environment. To address this issue at our operation in Madagascar, Ambatovy’s Head of Learning and Development prepared a Malagasy-language interactive web-based training tool, featuring video vignettes of culturally relevant situations. The Ambatovy training required employees to watch each vignette and guide a fictional employee to respond correctly to circumstances where the potential for corruption or fraud existed. The vignettes included such situations as an employee being pressured by a friend to secure a job, and a vendor offering a gift to an employee if that person “overlooked” the fact that the vendor had not passed a safety audit. The vignettes were developed to resemble a well-liked style of Malagasy theatre and used well-known Malagasy actors.

Expatriates at Ambatovy were also required to complete this additional training, so that both national and expatriate workers would have a common starting point for further conversations about corruption and how employees should respond to difficult situations. Employees and contractors who took part in the training had positive feedback and tended to respond correctly to the content-based questions. After incorporating feedback obtained during the training, a revised policy was drafted in 2016 and finalized in early 2017.





**Sherritt was recognized for successfully implementing a range of sustainable mining solutions at Ambatovy, including a biodiversity management program that targets “no net loss”; a “buy locally, hire locally” policy that is supported by several leading-edge initiatives; agricultural skills training for more than 18,000 people from local communities; developmental partnerships with international organizations such as the World Bank, UNICEF and the Red Cross; and innovative archeological and retraining programs.**

CASE STUDY

## **AWARD FOR EXCELLENCE IN SUSTAINABLE DEVELOPMENT AT AMBATOVY**

We were very pleased to have recently won the Syncrude Award for Excellence in Sustainable Development for our sustainability work at the Ambatovy Joint Venture in Madagascar. The award, issued by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), acknowledges companies or individuals who are “active seekers of sustainability solutions”.

Sherritt was recognized for successfully implementing a range of sustainable mining solutions at Ambatovy, including a biodiversity management program that targets “no net loss”; a “buy locally, hire locally” policy that is supported by several leading-edge initiatives; agricultural skills training for more than 18,000 people from local communities; developmental partnerships with international organizations, such as the World Bank, UNICEF and the Red Cross; and innovative archeological and retraining programs.

“Winning this award is an important achievement, as sustainable mining is core to our business,” said Sherritt’s President and Chief Executive Officer, David Pathe. “It is a proxy for good management and something that all our stakeholders have come to expect. We are very proud of the work in Madagascar, and I congratulate the entire team at Ambatovy that works tirelessly to ensure we are creating lasting benefits wherever we operate.”

## HUMAN RIGHTS

### MANAGEMENT APPROACH

Understanding and expectations related to human rights in the mining and energy sectors began to evolve 15 to 20 years ago as companies increasingly turned their attention to countries that are less developed. Many of these countries were – and continue to be – characterized by weak governance and respect for the rule of law, extreme poverty, low-cost labour, a lack of business regulations, and less-than-ideal mechanisms to protect the human rights of their citizens. These and other factors would contribute to instances of conflict in natural resource development – often involving communities, companies, governments and security officers – as a means of resolving the grievances of local residents.

The work of Professor John Ruggie, on behalf of the United Nations, defined a practical human rights framework, known as the [United Nations Guiding Principles on Business and Human Rights](#), which outlines the roles for state and business actors in the protection of human rights. It also identifies “access to remedy” for anyone with a human rights complaint as the single most important element for business to maintain its social license.

Although human rights issues do not currently represent a top risk at Sherritt, they are an inherent risk to all mining and energy production sites. To manage this risk, we are aligning with international best practices and expectations regarding human rights. We developed an enterprise-wide policy that commits to upholding the [Universal Declaration of Human Rights](#), along with other international principles.

The primary human rights-related considerations for Sherritt include access to remedy; the interaction between security personnel and communities near our operation in Madagascar (addressed under [Site Security](#)); labour rights (addressed under [Employee Relations](#)); and children’s rights in Madagascar.

At Sherritt, remedies for complaints, up to and including potential human rights violations, are provided through the community grievance mechanisms in place at the site level. Grievance mechanisms are processes to receive, acknowledge, investigate and respond to community complaints. These are valuable early-warning systems that can resolve sources of friction between stakeholders and companies, and can, over time, build trust. We have incorporated best-practice guidance from a number of sources into our recently developed Grievance Mechanism Standard, to ensure it is both practical and credible. A few examples of the types of community grievances we have received in recent years include: impacts to livelihoods during construction of Ambatovy, allegations of inappropriate hiring or contracting practices, and environmental impacts of operation and/or construction activities.

Currently, we have a formal community grievance mechanism in place at Ambatovy. It includes an external grievance committee, comprising respected members of local communities, that meets quarterly to review the grievance management process and resolutions, and to provide feedback and suggestions for improvement to management.

At our site in Fort Saskatchewan, we have a long-established informal process for responding to complaints from external parties and are in the process of implementing Sherritt’s Grievance Mechanism Standard. In Cuba, there is a state-run



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### SUPPORTING CHILDREN AND YOUTH IN MADAGASCAR

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system where citizens can file complaints against an entity, organization or enterprise whose activities they feel are adversely affecting their well-being. Commissions are set up to investigate grievances and develop action plans to address them. Sherritt's management team, or that of our Cuban partners, participates in the process to address any grievances related to our operations.

Our Human Rights Policy also articulates our commitment to the [Convention on the Rights of the Child](#). Violation of children's rights is a fairly low risk in Canada and Cuba, but in Madagascar this risk is more significant. At Ambatovy, we have a zero-tolerance policy for child exploitation that the entire workforce must sign. This policy was drafted with the support of UNICEF, in response to an incident that occurred at Ambatovy several years ago. Refer to this [blog posting](#) for more information. We also support youth-led peer awareness campaigns on child exploitation issues and HIV/AIDS in Madagascar. All contracts or agreements awarded to local suppliers include clauses requiring the strict respect of international rules towards child labour. Ambatovy's Local Business Initiative regularly verifies that these requirements are upheld.

Human rights issues, including the exploitation of children in the mining industry, are something Sherritt takes very seriously. Sherritt does not mine cobalt in conflict areas. By monitoring third-party feed sources, Sherritt ensures cobalt mined from any conflict area does not enter our supply chain at any point.

## PERFORMANCE

### Third-party Review

In 2016, the United Nations Development Programme conducted a due-diligence review of Ambatovy, including questions on human rights, in order for Ambatovy to enter into a new partnership agreement with the United Nations System. Ambatovy passed the review and the agreement was signed in November 2016.

### Human Rights Grievances

There were no human rights-related grievances reported at any of our operating sites in 2016. (Other types of grievances are captured and explained under [Employee Relations](#) and [Stakeholder Engagement](#).)

### Children's Rights

As of 2016, more than 9,000 suppliers have committed to following our children's rights requirements, which include zero-tolerance towards child sexual exploitation and child labour, among other concerns. Any supplier found to be in violation of these contractual requirements would be immediately terminated.

Sherritt was a member of the working group that drafted the [Child Rights and Security Checklist](#), which articulated specific considerations for security interactions with children. Other contributors include UNICEF, the Government of Canada, several global mining and energy companies, international non-governmental organizations, and other governments. The final guidance document will be published in 2017.

We continue to provide assistance to child-protection networks near our mine and plant sites in Madagascar in developing funding proposals for international donors. See this [case study](#) for more on our work to support children and youth in Madagascar.



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**Youth-related initiatives are part of Ambatovy's Zero Tolerance Program, established to protect children and fight against child sexual exploitation. All Ambatovy personnel, as well as contractors, have signed a policy document to affirm their commitment to this important effort.**

CASE STUDY

## **SUPPORTING CHILDREN AND YOUTH IN MADAGASCAR**

Youth involvement is one of the cornerstones of the HIV/AIDS and sexually transmitted infection awareness campaigns that Ambatovy oversees in communities near our operating sites. Ten kiosks, constructed in partnership with the [United Nations Children's Fund \(UNICEF\)](#), provide local youth with a space to gather, exchange information and provide one another with support. The kiosks are managed by 20 peer educators – all trained by Ambatovy – who share information about HIV/AIDS and sexually transmitted infections. The kiosks are now under the management of the Regional Direction of Youth, which supports and coaches the young peer educators.

These youth-related initiatives are part of Ambatovy's Zero Tolerance Program, established to protect children and fight against child sexual exploitation. All Ambatovy personnel, as well as contractors, have signed a policy document to affirm their commitment to this important effort.

Also in partnership with UNICEF, Ambatovy constructed four eco-friendly schools, and provided support for the development of an environmental education program. VOAHARY VOAKAJY, a local non-governmental organization, is now operating the schools, teaching environmental and conservation courses to students in the surrounding area. More than a thousand students have benefitted from this program to date.



## DEMONSTRATING ENVIRONMENTAL RESPONSIBILITY

### CASE STUDY

## REHABILITATION AND RECLAMATION IN MOA, CUBA

Decades before Cuba’s Alejandro de Humboldt National Park became a UNESCO World Heritage site in 2001, the state-owned predecessor of the Moa Joint Venture received a concession to develop a mineral deposit within the park.

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**We understand that mining and energy production involve disturbing the natural environment. Our overriding approach to demonstrating environmental responsibility is to avoid impacts wherever we reasonably can, and ensure that any we create are minimized, managed and remediated. In this way, we can limit our impacts, while seeking innovative ways to support environmental protection.**

### In 2016, we:

- Achieved zero high-severity environmental incidents across the business
- Completed construction and commissioning of a new acid-production plant that will reduce our CO<sub>2</sub> emissions by more than 100 kilotonnes per year
- Improved environmental reporting and transparency by enhancing data quality for emissions and tailings, and adding new indicators on impacts
- Piloted an electric vehicle program
- Achieved an overall reduction of 4% in Scope 1 greenhouse gas emissions compared to 2015

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## ENVIRONMENTAL LIABILITIES, CLOSURE AND RECLAMATION



# TAILINGS MANAGEMENT

## MANAGEMENT APPROACH

Sherritt produces two broad types of waste: mining waste and solid waste. Mining waste generally includes waste rock and tailings, produced as processing by-products. Solid waste consists of hazardous waste and non-hazardous waste. Hazardous wastes are identified by their chemical and physical properties, and their classification, handling, disposal and storage requirements are prescribed in regulations. Non-hazardous solid waste consists of materials that we use and produce that can be disposed of in municipal landfills, and is not considered material for the purposes of this report.

We design and operate our tailings management facilities (TMF) in Cuba and Madagascar to meet or exceed all applicable regulatory requirements in those jurisdictions. Ambatovy’s tailings management facility was also designed to meet the requirements of the Canadian Dam Association, the International Commission on Large Dams, and the [Mining Association of Canada’s Towards Sustainable Mining \(TSM\) Tailings Management protocol](#).

Following the recent tailings dam failures in Brazil and Canada – including our own pond failure at the Obed Mountain mine in Alberta in October 2013 – we are developing an enterprise-wide Tailings Management Standard. This standard will provide additional rigour in supporting our operating sites in fulfilling our commitment to designing, constructing, operating, decommissioning and closing all tailings facilities in such a manner that all structures are stable, all solids and water are managed within designated areas, and all management practices conform with regulatory requirements, sound engineering principles and good practice. This standard will also take into account lessons learned from a post-mortem review of the Mount Polley tailings pond failure conducted by the Mining Association of Canada and the latest guidance from the [International Council on Mining & Metals](#).

## PERFORMANCE

(2016)	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Total amount of overburden, rock, tailings and sludge (tonnes)	25,676,000	Not applicable	12,931,000	Not applicable

Note: There was a data-collection error in last year’s reporting process, and, as a result, [we did not report the tonnage of all forms of tailings waste in 2015](#). A clarification was made in the 2016 data-collection template to address that error. That is why there is a noticeable discrepancy between the 2015 and 2016 data for this indicator.

At our mining operation in Moa, we continued to work with our Cuban partners and industry experts to improve tailings and water management to better align with international best practice. Recent efforts include issuing the Operations Maintenance and Surveillance Manual and the Emergency Preparedness Plan with sections for management of tailings facilities. Training has been provided to all tailings facility personnel.

The tailings management facility at Moa is regularly reviewed internally and by third parties for structural integrity and effectiveness of management systems. Based on 2016 assessments, the facility is currently operating to design specifications. We continue to work with our joint venture partners to ensure employees have



**AMBATOVY’S TAILINGS MANAGEMENT FACILITY**

the required skills to manage the facility effectively. As it is nearing capacity, we have retained an internationally respected engineering firm to design an extension that will ensure we can continue to store tailings there until 2021. Permitting and detailed design work for the first stage of the extension was approved in 2016 and construction will take place in 2017.

We also began investigating options for tailings management so that we can continue to support mining operations in Moa in 2022 and beyond. Throughout this process, we will strive to minimize environmental impacts and meet international good-practice standards in tailings management.

At Ambatovy, the tailings management facility is a long-term construction project that involves the continuous raising of the perimeter dams to meet capacity needs. The first two phases of Ambatovy's TMF are currently operational. The detailed engineering of the third phase was completed in 2016. A significant amount of construction was also completed during the year to ensure the TMF is being developed in accordance with the engineering plan. There was one independent review and four audits of the project in 2016. Once construction is complete, the TMF will provide sufficient storage capacity for the remaining mine life, which is approximately 30 years.

There are no tailings produced at the Fort Saskatchewan or Oil & Gas and Power sites.

### Update on Remediation of Obed Containment Pond Breach

As we reported in previous sustainability reports, on October 31, 2013, a breach occurred due to a geotechnical slump, in an on-site water containment pond at the Obed Mountain mine, then owned by Sherritt, that resulted in a significant release of mud, clay, coal particles and approximately 670,000 m<sup>3</sup> of water into nearby creeks and the Athabasca River. We quickly mobilized our response team, working with regulatory bodies, and began engaging extensively with First Nations and local stakeholders to keep them informed and to address their concerns. After the sale of our coal operations to Westmoreland Coal Company in April 2014, we retained the environmental remediation and financial obligations associated with the breach, and have continued to work co-operatively with the Alberta regulator to address the impacts of the incident. Read more about it [here](#).

In 2016, we continued environmental monitoring of water quality, soil and sediment quality, fish habitat, wildlife, and vegetation and wetland resources. Past reports indicate that the breach and the resulting release of polluted water and sediments had measurable but minor effects on fish and fish habitat in the nearby creek, and that there are no residual effects on water and sediment quality in any of the nearby creeks or in the Athabasca River.

In 2016, we also submitted a reclamation plan to the Alberta Energy Regulator and Department of Fisheries and Oceans, with anticipated approval of final design expected in mid-2017.

We continue to engage with First Nations, communities and government on our progress, and we received an award from the Canadian Public Relations Society for our communications response to the crisis. A more detailed account of our response and remediation activities can be found on [www.obed.ca](http://www.obed.ca).



## BIODIVERSITY AND LAND

### MANAGEMENT APPROACH

Sherritt’s operations are found in diverse locations, ranging from primary forests to island environments to industrial zones. Our approach to managing biodiversity is tailored to the context of each operating site. At assets found in highly sensitive ecosystems, such as our Ambatovy mine in Madagascar, we follow a strict mitigation hierarchy: avoid impacts where possible, minimize any unavoidable impacts, repair any damage, and provide offsets (e.g., positive management interventions such as restoration of degraded habitat for residual impacts) wherever necessary.

This mitigation hierarchy, which forms the foundation of Ambatovy’s biodiversity-related work, was designed by the [Business and Biodiversity Offsets Programme \(BBOP\)](#), a multi-stakeholder initiative that seeks to develop best practice in biodiversity protection for developers of large greenfield projects. Ambatovy has been an active supporter of BBOP since its inception in 2006.

Ambatovy’s approach to conservation also conforms to the requirements of Madagascar’s regulator, the National Environment Office, and with the [International Finance Corporation \(IFC\) Performance Standards on Environmental and Social Sustainability \(2012 version\)](#), which includes a discrete standard on biodiversity conservation and sustainable natural resources management.

In 2009, Ambatovy established a Scientific Consultative Committee on biodiversity as part of its commitment to transparency and to apply international conservation expertise to its biodiversity management activities. The Committee includes 14 national and international independent scientists renowned for their expertise in biodiversity, conservation, and environmental management. The Committee convenes every two years – most recently at the end of 2016 – to facilitate an external evaluation of Ambatovy’s implementation of the biodiversity management program and to make recommendations for the conservation of Madagascar’s unique biodiversity to management.

In Canada and Cuba, environmental baseline studies and impact assessments are conducted and biodiversity management plans are implemented, as required by regulation. However, the breadth and depth of our work at Ambatovy has demonstrated to us the value of developing a standard approach for addressing biodiversity considerations across the rest of the company. We have been evaluating the requirements of the [Mining Association of Canada’s Towards Sustainable Mining Biodiversity Conservation Management protocol](#) and how these could add value to our business. We intend to develop a minimum standard for biodiversity and land management within the next few years. It will be practical and risk based, and will provide us with a consistent set of requirements for identifying and managing biodiversity impacts.

### Land Management

We recognize that the land entrusted to us is a valuable resource. We work with authorities and other organizations to manage and reclaim the land during active mining and once operations have ceased. This is demonstrated by our longstanding



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record of reclamation and remediation activities, which have been covered in previous sustainability reports. Our active mining properties in Cuba and Madagascar progressively rehabilitate land and regularly monitor progress against rehabilitation plans with the regulatory authorities in both jurisdictions.

The Fort Saskatchewan site manages land issues within its government-approved operating permit, which includes discrete requirements for soil management. Our Oil & Gas operating sites in Cuba routinely mitigate any impacts of oil exploration and recovery activities when operations have ended. Drill sites are cleaned, topsoil is replaced and the land is returned to conditions similar to those that existed before drilling commenced. In accordance with the requirements of our operating permits, the land will be returned to the Cuban state after the expiry of the term of the contract.

### PERFORMANCE

#### Ambatovy's Biodiversity Management System

In 2016, the Ambatovy Biodiversity Management System (ABMS) – which operationalizes many of the principles mentioned in the preceding description of our biodiversity management approach – was fully implemented. Twelve status reports on 12 impact management plans were written and validated by Quality Controllers. Five of the plans have finished an entire cycle of ABMS (flora, birds, lemurs, mantella and micromammals). Coaching on the implementation of the management system was provided to stakeholders, including universities, non-governmental organizations, and offset site managers. Discussions were held to improve standard operating procedures, and database management.

#### Species of Concern

Ambatovy has commitments to protect and conserve species of concern (SOC) within the lands under its direct control. Our mining operation is located within the Ambatovy-Analamay forest, and our mine lease is subdivided into the mine footprint, which contains our active operations, and the surrounding conservation zone.

The Ambatovy-Analamay forest area is within the Torotorofotsy [Ramsar Convention](#) site, which is an internationally significant wetland. The forest area forming our lease comprises 21.5 km<sup>2</sup> of high biodiversity value, featuring 1,700 species of vascular plants and 336 species of vertebrates. Within this area, we have identified nine priority species, of which four are considered to be endangered, according to criteria established by the [International Union for the Conservation of Nature \(IUCN\)](#), and six are SOC. We are responsible for the inventory and monitoring of a total of 109 SOC and the four endangered species, as well as retrieving all orchid species. Refer to this [case study](#) to learn more about our orchid conservation work.

In 2016, we continued to introduce SOC's into the mine zone, and salvaged SOC's from the clearing zone directly in the mine footprint. Thanks in large part to this type of work, we were awarded the [Syn crude Award for Excellence in Sustainable Development](#) at the [Canadian Institute of Mining, Metallurgy and Petroleum's](#) annual convention in 2015. Read this [case study](#) to learn more.



#### CASE STUDY

#### PROTECTING THE SMALLEST INHABITANTS WHERE WE OPERATE

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Last year, Ambatovy was proud to take part in the World Lemur Festival in Madagascar's capital. The theme was: "Lemurs, national heritage, friends to protect". The Festival represented an important opportunity for Ambatovy to share with a Malagasy and international audience both scientific and anecdotal information on its efforts to ensure the long-term viability of the 13 species of lemurs it has identified and their habitat in the conservation areas around the mine.

### Invasive Species

One of the most significant potential threats to areas of high biodiversity is the introduction of non-native, exotic and invasive species, which can rapidly adjust to new conditions and have an adverse effect on native biodiversity.

We have processes in place to control three invasive species at the Ambatovy mine, plant and port sites:

- Norway rats: We have implemented a 6 km<sup>2</sup> capture zone around five villages near the mine to prevent Norway rats from affecting the forest; and, in 2016, undertook six eradication campaigns, during which capture activities occurred.
- Crayfish: Crayfish control is implemented twice a year at six sites. Apart from capturing the crayfish in collaboration with local villagers, who are trained as captureurs, we also organize campaigns to raise awareness about the crayfish and its impacts on agriculture, habitat and biodiversity. There was an increase in the number of crayfish captured in 2016 from the previous year.
- Asian toads: Throughout 2016, a vigorous effort to remove Asian toads within the mine footprint continued; Ambatovy also supported broader eradication efforts (see details below). The toads are believed to have been introduced via an unidentified container from Southeast Asia at the Port of Toamasina, which is located near our plant site.

### *Response to Concerns over the Introduction of the Asian Toad*

In 2015, two international non-governmental organizations approached Sherritt about the introduction of invasive Asian toads to Madagascar. They suggested that Ambatovy's shipping activities through the port may have inadvertently introduced the species and requested that we take a leading role in the overall response. We have examined this issue critically, and while our assessment does not support their conclusion, we have responded to their queries formally and have had several constructive discussions on this topic with representatives from these and other concerned organizations and institutions.

During the timeframe that the toad is speculated to have arrived in Madagascar, Ambatovy accounted for less than 5% of the Port of Toamasina's total traffic – and that percentage is even lower for shipments coming from the toad's zone of origin, according to our records and those we obtained from Madagascar's customs office.

Nevertheless, as a responsible actor that cares deeply about biodiversity management, we are committed to supporting the Government of Madagascar's leadership in addressing this significant threat. We have joined the government's national committee, which is comprised of several stakeholders, to mitigate the

impacts of the Asian toad. We also entered into a memorandum of understanding with Madagascar's National Environment Office to carry out a joint eradication program that goes well beyond the scope of our own efforts to date. We appreciate the growing urgency to take broader measures and are hopeful that our contributions will lead to lasting results.

In 2016, Ambatovy signed a collaboration agreement with the Regional Directorate of Environment, Water and Forest (DREEF) Atsinanana to continue the program against invasive toads. During the year, seven eradication campaigns took place with support from the Department of Animal Biology at the University of Antananarivo. Ambatovy also provided financing for a third party to manage the eradication efforts in nearby communities and areas outside of Ambatovy's footprint. These efforts are scheduled to begin in early 2017.

Along with the eradication program, the national committee developed a communication strategy with financial support from Ambatovy. Communication with local community members occurs via print and electronic media, and educates communities on the invasive species, eradication techniques, and other suggested actions.

Ambatovy will continue to provide technical and financial support to these efforts in 2017.

In addition to addressing invasive toads and other fauna, we are also controlling three exotic plant species at the mine site, including the removal of the Lantana camara species over an area of 42 hectares (ha) and the removal of exotic pine and eucalyptus trees over approximately 1,600 ha.

### Conservation Partnerships and Collaboration

Ambatovy is involved in two important partnerships with civil society organizations to assist in managing the offsets we have created to compensate for our disturbances. We engaged [Conservation International](#) to manage the Ankerana forest – our 5,715 ha offset that is located some 70 km northeast of the mine site. We also reached an agreement with [Asity Madagascar](#), which is associated with BirdLife International, to manage the Torotorofotsy wetlands. We feel that these respected civil society organizations bring both credibility and additional expertise in managing biodiversity. Both the Ankerana and Torotorofotsy offsets are important demonstrations of our commitment to evolving international best practice and to protecting and enhancing the rich biodiversity that surrounds the mine area and beyond. In 2016, Ambatovy supported both managing parties financially and technically for conducting site patrols, developing income-generating activities, and carrying out awareness campaigns – all of which are necessary to maintain the habitat quality of the sites.

### Biodiversity Management at Moa

Our open pit nickel mine near Moa, Cuba, is located approximately 15 km north of [Alejandro de Humboldt National Park](#), a UNESCO World Heritage site particularly known for its extensive suite of endemic species of flora. Moa Joint Venture has long partnered with the Cuban authorities for the restoration and protection of these lands. For more information, refer to this [case study](#).

In 2016, more than eight hectares of land were reforested, reconstructed and protected from degradation. In 2017, prioritization will be given to areas affected by Hurricane Matthew.

**Biodiversity Management Elsewhere**

In Canada, our refinery’s impacts on biodiversity are minimal, given that it is located in an industrial zone within the city limits of Fort Saskatchewan. Our energy operations in Cuba also have minimal impacts on biodiversity, given the small footprint and nature of our activities. In 2016, no significant conservation activities were required or undertaken at these sites.

It is worth mentioning that our Block 10 oil drilling program, which began in 2016, is taking place adjacent to a protected mangrove site. To minimize our impacts, we are conducting the program from a previously disturbed footprint, while working in close consultation with Cuba’s environmental regulator.

**Land Management**

In 2016, both Ambatovy and the Moa site practiced progressive reclamation in accordance with their operating permits and commitments. The total amount of disturbed and rehabilitated land during the year was similar to that of 2015. There were no changes to the operational footprint of the Fort Saskatchewan refinery or our Cuban energy business, in part because these areas are still active.

During the year, however, the Fort Saskatchewan site did submit an updated soil management plan to meet the regulatory requirements of Alberta. Discussions on this plan will continue in 2017.

The table below shows the amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated.

<b>2016</b>	<b>Ambatovy<sup>1</sup></b>	<b>Fort Saskatchewan</b>	<b>Moa<sup>2</sup></b>	<b>Oil &amp; Gas and Power</b>	<b>Total</b>
Total amount of land disturbed and not yet rehabilitated (ha)	2,088	100	166	6	2,360
Total amount of land newly disturbed within 2016 (ha)	82	0	51	2	135
Total amount of land newly rehabilitated within 2016 to the agreed end use (ha)	10	0	30	Not applicable	40
Total land rehabilitated since the start of the project (ha) – estimate	105	Not applicable	640	Not applicable	745

1. Please note the data reported for Ambatovy in 2015 accounted for all planned land disturbance over the entire life of mine, rather than what had been disturbed up to the reporting year; this error has been corrected in 2016 reporting, which accounts for all current land disturbance at the mine, plant and auxiliary facilities.
2. Data reported for Moa represents land disturbance that occurred from 1994 onwards – or the years that the Moa Joint Venture between Sherritt and the Cuban state has been in place. The data do not reflect any mining activity at the site that pre-dates the joint venture.





**“I am very proud of our rehabilitation work at Moa, because we are managing the environment with a great deal of care and responsibility.”**

**– Teresa Hernandez Columbie, responsible for reclamation at Moa Nickel**

CASE STUDY

## REHABILITATION AND RECLAMATION IN MOA, CUBA

Decades before Cuba’s Alejandro de Humboldt National Park became a UNESCO World Heritage site in 2001, the state-owned predecessor of the Moa Joint Venture received a concession to develop a mineral deposit within the park. Preliminary, small-scale exploration work was carried out on this deposit, once in the 1970s and again in the 1990s. In the mid-1990s, the Cuban government declared the park to be a protected area, requiring any type of mining or industrial activities to cease.

Absolutely no exploration work of any kind has been carried out in the park since then. In 2008, the Moa Joint Venture officially relinquished its concession. About three years later, at a meeting with Cuba’s National Council of Hydrographic River Basins, the Joint Venture agreed to evaluate the best approach to rehabilitating the impacted areas and to include this work in its annual environmental management plans going forward. Around that same time, the Park Authority was commissioned to carry out an impact assessment.

This collaboration ultimately led to the development of a long-term biodiversity management plan to restore the impacted areas in the park. This plan is being executed collaboratively by the Moa Joint Venture, Cuban regulatory agencies and the Park Authority. It encompasses soil conservation; the creation of hydro regulation channels to restrain floodwater and prevent erosion; reforestation of endemic species such as the ocuje (*Calophyllum antillanum*), which is prized for producing a very hard, durable wood, and the Cuban oak; as well as other areas.

In addition to this important conservation work in the park, our reclamation team in Moa has been working for many years on restoring areas in and around the mine site, to meet the requirements outlined in our environmental permit. This restoration work includes testing new methods for erosion control and different plant species for survivability. The soil around Moa is quite acidic, meaning that not all vegetation can flourish there, but our highly educated team on the ground is experienced in reforestation and reconstruction for such areas.



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**Through our cataloguing and conservation work, we have identified approximately 250 types of orchids – 25% of all existing orchids in Madagascar – of which eight are new species to science and found only in our conservation areas.**

CASE STUDY

## CONSERVING MADAGASCAR'S PRECIOUS ORCHIDS

Located off the coast of Africa, the island of Madagascar is home to more than 1,000 species of rare – and often endangered – orchids. As part of our commitment to biodiversity management, we systematically survey the Ambatovy mine footprint for orchids. Once identified, they are individually catalogued and conserved for future re-establishment after mining operations cease. The photograph shows rows of orchids that have been transplanted for conservation and identification in our orchidarium, a shade house that is staffed by local experts and contains more than 900 precious samples. Through this work, we have identified approximately 250 types of orchids – 25% of all existing orchids in Madagascar – of which eight are new species to science and found only in our conservation areas. This is an example of how we take careful and innovative approaches to protecting impacted ecosystems for future generations.

In 2016, Ambatovy – along with conservation partner Missouri Botanical Garden – published a scientific poster on orchid conservation. It received first prize at the Sixth International Orchid Conservation Congress held in Hong Kong that year.





CASE STUDY

## PROTECTING THE SMALLEST INHABITANTS WHERE WE OPERATE

At Sherritt's Ambatovy mine in eco-diverse Madagascar, even the smallest species are cared for. The Rheocles Mangoro is a newly discovered endemic fish, which Ambatovy identified near the mine. In their native habitat, these fish are sustained by local watersheds and protected from invasive species by natural barriers. Since 2007, Sherritt has worked hard to sustain this species using innovative methods for salvaging, creating and restoring habitat, and protection against exotic species. Estelle Razafindranaivo, Sherritt's Ichthyologist, has been with these fish from the beginning. Her passion, care and innovative thinking have given them a promising future.

**At our Ambatovy mine in eco-diverse Madagascar, even the smallest species are cared for. The Rheocles Mangoro is a newly discovered endemic fish, which our environmental team identified and is now working hard to protect.**

# WATER

## MANAGEMENT APPROACH

As the global population swells, the demand for fresh water continues to grow and societal concerns about water quality and availability increase. We understand and share these emerging concerns, which are common across the company.

Water is central to our metallurgical process for producing nickel, and we manage it carefully. Where feasible, process water is recycled or reused within the process itself. Runoff is controlled through diversions and catchments to minimize any release to the environment. For each operating site, we conduct baseline studies, assess risks and engage stakeholders to inform them of our water management planning.

Pumping water for use in our processes takes a considerable amount of energy, and we are continually taking steps to identify how we can optimize our practices and minimize the amount of water and energy we use.

We also conduct monitoring to help ensure that we are not unduly contaminating surface water or groundwater resources with our process discharges. There are stringent regulatory water quality limits that apply to our discharges to protect the receiving environment, and our monitoring programs are designed to comply with the emission limit values in each jurisdiction, and to help us detect any unanticipated problems and manage risk beyond regulatory obligations.

Our approach to water management varies across our operations, depending on technical requirements, local climate, water bodies and stakeholder interests. Building on the range of water management practices and initiatives in place, we are working towards the development of a corporate Water Standard that will apply across the company.

## PERFORMANCE

### Water Use

2016	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Total
Total water withdrawal (m <sup>3</sup> )	27,800,000	2,500,000	14,150,000	234,000	44,684,000

Note: There was a reporting error in 2015 water use data for Moa that has been corrected. Water use at Moa in 2015 was 14,300,000 m<sup>3</sup>.

Ambatovy reported 27.8 million m<sup>3</sup> of water consumption in 2016, which is consistent with prior years. Water for our processes is withdrawn from a variety of sources at the mine, plant and port facilities, including the Ivondro River, the Mangoro River, Antsahalava Creek and groundwater wells. Potable water for the plant site originates from wells at the facility. Our water withdrawal is monitored quarterly by the regulator.

Erosion and silting of the Mangoro River, from which Ambatovy draws water for mining operations, is troubling. It is in our interest to ensure the long-term viability of the river, and so, in 2016, Ambatovy began collaborating with PRODAIRE, a

development project that promotes an integrated approach to rural development and environmental protection. This two-year collaboration, which also involves local villages, will bring greater focus to reforestation and the prevention of riverbank erosion in the impacted areas.

Our Fort Saskatchewan site withdraws water from the North Saskatchewan River under provincial licenses for use in our processes. We purchase potable water from the local municipality. The total water withdrawal for the Fort Saskatchewan site in 2016 was the same as previous years: 2.5 million m<sup>3</sup>, including 2.4 million m<sup>3</sup> taken from the river and 0.1 million m<sup>3</sup> of purchased potable water. We report our water withdrawal monitoring results to the provincial regulator on a monthly basis. Process effluent and stormwater (snowmelt/rainwater) that we collect on our site are treated to meet the regulated water quality guidelines. This water is then transferred to the municipal wastewater collection system, where it is treated further and then discharged into the surrounding environment along with wastewater from the wider municipality.

Our Moa site in Cuba withdrew 14.15 million m<sup>3</sup> of water for its processes in 2016. (The 2015 data was misreported; the correct withdrawal amount for that year was 14.3 million m<sup>3</sup>, which is in line with 2016.) Water is collected in our adjacent reservoir and treated before use.

Oil & Gas and Power reported a total water withdrawal in 2016 of 0.23 million m<sup>3</sup>, a slight decrease from 2015. Water is drawn primarily from municipal sources, as well as groundwater sources at Power facilities. Oil & Gas service rigs use recycled water only, resulting in a net effect of zero on the water supply.

### Water Quality

In 2016 at Ambatovy, there continued to be elevated concentrations of manganese in water that we discharge from our tailings management facility that sometimes exceeded the regulated limit established by Madagascar's environmental agency. Manganese at low concentrations poses only aesthetic concerns; that is, it imparts a discolouration to drinking water. At higher concentrations, it can have adverse health effects. To safeguard public health, we offered an alternative source of potable water to residents located close to the discharge point and who may use nearby water sources for drinking water in 2015, and this program is scheduled to conclude in 2017, when a permanent potable water supply system will be installed for the local community. We also provided regular water-quality updates to residents and the regulator. Based on the findings of a root cause analysis of the issue, we began implementing corrective actions – as per the Manganese Action Plan, which was finalized in 2016 – including building up tailings beaches to reduce the manganese before discharge and installing a permanent pumping house in order to regain compliance with our permit requirements. The Plan has been reviewed externally. In 2017, we will continue to install interceptor wells and drainage systems to capture water before it enters into the surrounding environment, and recirculate it for treatment. We will also continue to look at other options for treatment.

At Fort Saskatchewan, we monitor water quality at several locations within the site's treatment system, and review the results to ensure compliance before the release of water into the municipal collection system. We reported our water quality results to

the municipality monthly and to the Alberta regulator on an annual basis. There were no non-compliance events sourced to Sherritt during the year.

Historic activities at Fort Saskatchewan have had an impact on groundwater quality. We have installed a series of wells to monitor groundwater quality and we remove and treat affected water as required. We report regularly to the Alberta regulator about our activities and effects.

Sherritt also continued its participation on the Capital Region Water Management Framework Advisory Committee in 2016. The goal of the Framework is to improve the quality of water in the North Saskatchewan River, manage impact on water quantity, and implement a water management framework that is science-based and world-class.

When we invested in Moa more than 20 years ago, we inherited a legacy water management issue, which has affected water quality in a nearby river. Over the years, we have been working with our Cuban partners and the regulatory agency to address this issue. In 2016, we continued our investigation into long-term treatment options for water management. We expect to come to a decision with our Cuban partners on the preferred solution in 2017, and to begin implementation soon thereafter.

There were no significant spills recorded at Oil & Gas and Power in 2016.

## ENERGY AND CLIMATE CHANGE

### MANAGEMENT APPROACH

We operate an energy-intensive business. Energy consumption is a major input to our processes across the company, and energy-related costs are the second-largest component of unit operating costs after labour. These realities mean that we are motivated to reduce energy consumption and maximize efficiencies at every stage of our production cycle, from mining and oil recovery through to processing, refining and shipping finished products, and generating electricity. Concerns about the possible impacts of climate change on the planet and on our business increase the urgency of this issue for us, and affirm our role in contributing to global efforts to reduce greenhouse gas (GHG) emissions.

We have evaluated our management approach to energy and climate change against the requirements of the [Mining Association of Canada's Towards Sustainable Mining Energy and Greenhouse Gas Emissions Management protocol](#) and intend to develop and implement a corporate standard across the company in the coming years.

### Air Quality

Broadly speaking, managing air quality around our operations is an important element of our environmental programs company wide. We are conscious of the potential impacts of our operations and take great care to ensure that all applicable air quality regulations are properly followed.

Air emissions generally comprise two types of sources. The first type includes specific discharges of gases from our process stacks and vents – such as sulphur oxides (SO<sub>x</sub>), hydrogen sulphide (H<sub>2</sub>S) and nitrogen oxides (NO<sub>x</sub>). When emitted into the air, these compounds can pose risks to human health and lead to environmental degradation. The second type of air emission includes small airborne particles generated from activities in the open environment, called particulate matter (PM). PM is predominantly produced as a result of traffic on unpaved roads at our facilities, excavation activities at our mines, and fertilizer production at our refineries. We have strict safeguards in place at all sites to minimize the risk of air releases and regularly review and revise processes to minimize the release of PM through our activities.

### PERFORMANCE

#### GHG Emissions and Energy Consumption

2016	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Total
Scope 1 GHG emissions (kt CO <sub>2</sub> e)	1,884	355	622	1,583	4,444
Scope 2 GHG emissions (kt CO <sub>2</sub> e)	0	130	50	0	180

GHG emissions at Ambatovy, for the mine, plant and port facilities, were estimated at a combined total of 1,884 kilotonnes (kt) of CO<sub>2</sub> equivalent during 2016, representing a 7% decrease over 2015 emissions. The decrease is mainly the result of several



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maintenance shutdowns. As there is a lack of large-scale power available in Madagascar, the use of coal for power generation at Ambatovy accounts for the majority of the GHGs produced. Ambatovy consumed 3,551,782 gigajoules (GJ) of energy in 2016 from a mix of coal-fired power plant and fossil fuel burned. In 2016, Ambatovy continued to take steps to reduce the use of light vehicles on site and optimize the use of electric vehicles as a means of reducing emissions. Refer to this [case study](#) to learn more.

Fort Saskatchewan reported GHG emissions of 355 kt of CO<sub>2</sub> equivalent in 2016. Sherritt has purchased 44 kt of carbon credits to help offset these emissions and comply with provincial regulations. Fort Saskatchewan recorded total energy consumption (including purchased electricity) of 5,071,000 GJ in 2016, which is comparable to the year previous. During the year, the site reduced overall GHG emissions by using waste fuel for the powerhouse boilers.

In 2016, a significant amount of stakeholder consultation occurred in Alberta for the development of new provincial GHG regulations, which could impact operations at the Fort Saskatchewan site. Sherritt continued to be active in the regulator-led process, advocating for a science-based approach that gives fair consideration to energy intensive trade-exposed businesses, like ours. Until regulations change, the Fort Saskatchewan site will continue to operate under the current regulatory regime; as such, we track and report all emissions and are required to make reductions in, or to purchase equivalent credits for, emissions arising from both the combustion of fossil fuels and the venting of certain streams within our ammonia plant.

At Moa, we produced 622 kt of CO<sub>2</sub> equivalent during 2016; this amount is comparable to previous years. We consumed a total of 7,582,473 GJ of energy in 2016, including generated and purchased electricity. Most notably in 2016, we completed construction of a 2,000 tonnes/day sulphuric acid plant, which allows us to produce more of our own acid as an input to our process and reduce the amount of acid we need to import. Furthermore, it produces by-product steam, which in turn reduces fuel oil combustion. All told, the acid plant is expected to reduce CO<sub>2</sub> emissions at Moa by approximately 100 kt per year.

Oil & Gas and Power (OGP) reported the production of 1,583 kt of CO<sub>2</sub> equivalent during 2016 from its Boca de Jaruco, Puerto Escondido and Varadero facilities. Our Oil & Gas operations reported energy usage of 40,804,195 GJ. OGP also flared 19,705 e<sup>3</sup>m<sup>3</sup> of hydrocarbons associated with its oil production processes during the year. The increase in energy usage over 2015 is attributed to the fact that there was no drilling program in 2015, whereas drilling activities occurred at Block 10 from August onward in 2016. OGP's preventative maintenance program ensures optimal operation of our equipment, and we conduct quarterly monitoring of any emissions from our key sources to verify proper combustion.

Since 2007, Energas has generated well over one million [Clean Development Mechanism \(CDM\)](#) credits at the Varadero combined cycle power generation facility in recognition of its low GHG emissions relative to other sources of electricity in Cuba. While there are many benefits to the program, the relative administrative costs are significant and, due to Sherritt's financial constraints, our participation has diminished in recent years. Read this [case study](#) for more information on our efforts to obtain CDM credits over the last few years.



### CASE STUDY

### ELECTRIC VEHICLES AT AMBATOVY

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2016 was the first year that Sherritt has reported Scope 2 emissions across the entire company. Scope 2 emissions refer to indirect emissions generated from the purchase of electricity. The majority of power consumed by Sherritt is generated on site, due to the remote nature of our operations and/or the limited availability of grid power in host jurisdictions. Therefore, Scope 2 emissions will always be of a lower order than those of Scope 1.

### Air Quality

In 2016, Sherritt experienced eight reportable air quality-related incidents: five at Ambatovy and three at Fort Saskatchewan. The majority related to short-term exceedances in normal operating conditions or equipment failures with no identified off-site air quality impact. No employees or community members were harmed while these incidents occurred or while they were addressed.

2016	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Air emissions – NO <sub>x</sub>	7.1 µg/m <sup>3</sup>	1,678 tonnes	1,564 tonnes	6,687 tonnes
Air emissions – SO <sub>x</sub>	18.3 µg/m <sup>3</sup>	57 tonnes	13,073 tonnes	11,601 tonnes
Air emissions – TPM	28.2 µg/m <sup>3</sup> PM10	77 tonnes	Not calculated	Not applicable

Note: In Madagascar, our current monitoring system records air emissions as a concentration rather than a total mass (which is what we monitor at our other operating sites), and we base our ambient air quality observations at ground level, so we are unable to normalize these data across Sherritt at this time.

Our sources of emissions to the atmosphere are regulated under requirements in the various jurisdictions where we operate. In Madagascar, our current monitoring system records air emissions as concentration rather than as a total mass (which is what we monitor at our other operating sites) and we base our ambient air quality observations at ground level, so we are unable to normalize these data across Sherritt. Ambatovy emissions include: SO<sub>2</sub> from the acid plant, ammonia from refinery scrubbers and vents, H<sub>2</sub>S from the mixed-sulphide and hydrogen sulphide plants, NO<sub>x</sub> from fossil fuel use (from gensets, the coal-fired power plant and mobile equipment), and PM with a diameter of less than 10 microns from stockpiles, the power stacks and roads.

Our 2016 emissions at Fort Saskatchewan are consistent with historical levels. Most of the NO<sub>x</sub> and SO<sub>x</sub> emissions come from our utility generation (natural gas combustion) and fertilizer production (ammonia and sulphuric acid production) activities. Ammonia is released primarily from ammonia scrubbers in the metals refinery, which uses an ammonia-based leaching process. The PM is generated primarily from the production of ammonium sulphate fertilizer and from traffic on unpaved roads. Additional information on air quality in Fort Saskatchewan can be found on the [Fort Air Partnership website](#).

In Cuba, Moa’s NO<sub>x</sub> and SO<sub>x</sub> emissions are generated from the sulphuric acid plant and the powerhouse. The 2016 volumes decreased slightly from 2015. OGP’s NO<sub>x</sub> and SO<sub>x</sub> emissions continued to show a decrease from the previous year, due to the optimal operation of the equipment at our OGP facilities.





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**The new acid plant in Moa was built on time and on budget – and very safely. By producing more of our own acid on site, we reduce Moa’s GHG emissions by a considerable amount.**

CASE STUDY

## CONSTRUCTION OF THE NEW ACID PLANT AT MOA

In 2016, the Moa Joint Venture completed construction and commissioning of the third acid plant for producing sulphuric acid in Moa.

The project was delivered within the established construction timeline and budget of US\$65 million. It also represents the Joint Venture’s first capital project to be fully financed by a Cuban financial institution.

“We were pleased to complete this expansion project and to see it start up successfully on time and on budget,” said David Pathe, Sherritt’s President and Chief Executive Officer. “The third acid plant delivers significant cost savings and reduces fuel consumption. The safety record during construction and commissioning was impressive. A 0.48 lost time injury rate with over 1.2 million exposure hours speaks to the high standards upheld by the Cuban construction workforce.”

The new plant resulted in a 20% reduction in emissions between August and December 2016, due to the double-absorption process, and is poised to result in a reduction of up to 100 kilotonnes of CO<sub>2</sub>e annually in the future.



**Energas' Varadero combined cycle facility produces lower GHG emissions for each gigawatt hour (GWh) of electricity than other facilities, reducing overall GHG emissions in Cuba.**

CASE STUDY

**CLEAN DEVELOPMENT MECHANISM CREDITS IN CUBA**

Energas S.A., the electricity generating joint venture enterprise operated by Sherritt in Cuba, installed a system that uses waste exhaust heat to generate steam and produce electricity (called a combined cycle generating unit) at its Varadero facility in 2003. In 2007, this unit was granted [Clean Development Mechanism \(CDM\)](#) status under the provisions of the Kyoto Protocol by the United Nations Framework Convention on Climate Change (UNFCCC). While the international framework containing the rules governing the CDM expired in 2012, the continuance of the CDM post-2012 has been supported through a commitment by certain regional and domestic emission-trading markets to allow entities to use Certified Emission Reductions to meet their compliance obligations under these systems.

Energas Varadero facility produces lower GHG emissions for each gigawatt hour (GWh) of electricity than other facilities, contributing to the reduction of GHG emissions in Cuba. By the end of 2014, 1,533 kilotonnes of carbon dioxide emission reductions had been documented for the Kyoto credits. Of these, only 343.12 kilotonnes' worth of credits have been issued, mainly due to delays in verification and approvals. An additional 638.39 kilotonnes have been approved and are ready for issuance, with 184.78 in the approval process for future issuance. At the end of that same year, a further 366.78 kilotonnes covering the reporting periods of 2012 (172.21 kilotonnes), 2013 (127.16 kilotonnes) and 2014 (67.41 kilotonnes) were documented on a preliminary basis.

The first Energas CDM project at Varadero was approved to receive credits over a seven-year monitoring period. To continue receiving CDM credits, Energas must apply to the UNFCCC for renewal for the Varadero facility. We will make a decision on whether to proceed with this renewal on the basis of current economics, revised processes and any benefits or drawbacks associated with the registration of our second facility that would qualify: the recently built Boca de Jaruco combined cycle power generation site.



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**The recent introduction of electric vehicles at Ambatovy has already begun to provide many cost, environmental and safety benefits.**

CASE STUDY

## **ELECTRIC VEHICLES AT AMBATOVY**

Ambatovy has introduced two electric busses for transporting workers and stakeholders around the plant site in Madagascar. The benefits of electric transportation are many. The busses are inexpensive to run and maintain, as they do not consume any diesel or lubricants, but instead use electricity produced at the plant. They are estimated to save the company up to \$50,000 per year on fuel and maintenance costs. Electrical vehicles do not create harmful emissions, and use solar panels to extend their charge. Maintenance is limited to keeping the busses clean, greasing the suspension and checking the battery water levels on a weekly basis. Electrical busses are also safer since their speed is limited to 30 km/hour and their large windows ensure that oncoming vehicles maintain a high degree of visibility, so drivers can clearly spot nearby pedestrians and other potential road hazards.

In the coming years, Ambatovy will look to expand this emission-reducing initiative, which has already yielded a range of cost, safety and environmental benefits for operation.

## ENVIRONMENTAL LIABILITIES, CLOSURE AND RECLAMATION

### MANAGEMENT APPROACH

The reputation of the mining sector has been affected by the historical mismanagement of mine properties that closed before regulations were in place to address closure and associated costs. We take seriously our responsibility to provide adequate financial resources to address the closure of our properties once reserves have been depleted.

Regulations have been strengthened around the world. As part of the permitting process, mining and energy companies are now required to prepare closure plans with associated cost estimates, and to provide host governments with financial assurance to cover the costs of environmental remediation in case the company is no longer able to complete the work. In addition to these regulatory requirements, international accounting and securities exchange rules require public companies to account for the reasonably expected liabilities associated with the closure of mining and energy properties. These estimates, like those provided to host governments, are based on the closure plans and assumptions contained therein.

We comply with regulatory requirements regarding closure planning and related environmental rehabilitation obligations, cost estimates, and financial assurance in each of the jurisdictions where we operate. We also meet the requirements of the Ontario Securities Commission, which obliges publicly listed companies in Ontario to estimate and disclose their environmental rehabilitation provisions. We review these provisions on a quarterly basis. Whenever possible, we engage in the progressive reclamation of our properties over the life of the operation, rather than initiate such activities at the time of closure.

### PERFORMANCE

The current estimate of Sherritt's share of total anticipated future closure and reclamation costs to be incurred over the life of the company's various assets and investments is approximately \$103.2 million (excluding operating expenses).

In 2016, we continued to carry out our environmental liability obligations related to the containment pond breach at the Obed mine, a non-operational coal mine in Alberta that we owned at the time of the incident in 2013. Our remediation work is described under [Tailings Management](#).

### Closed Properties

As part of our acquisition of Dynatec Corporation in 2007, we inherited three now-closed assets from Highwood Resources Ltd.:

1. **Mineral King**, a former lead-zinc and barite mine and processing facility near Invermere, British Columbia. In 2014, Sherritt completed the reclamation work plan as required by the provincial regulator. Portals for accessing the mine were covered and secured, coverage of the tailings pond with topsoil was completed, access roads were pulled back, and designated areas were seeded and fertilized.

A 2015 inspection by British Columbia's regulator required additional work on the portals and surface depression. This work is planned for 2017. Once reclamation is complete and approved by the government, we intend to transfer future liability to the new property owner.

2. **Parsons**, a former barite mine and processing facility near Parson, British Columbia. In 2014, we completed the regulator's reclamation work plan, which involved: a general clean-up, monitoring, seeding, and the removal of an invasive species. Once vegetation is re-established and land certification requirements are met, we will take steps to release the property to the provincial government. We expect the release of the bond and the return of the property to the government to occur in 2018.
3. **Canada Talc**, a former talc mine in Madoc, Ontario, and processing facility near Marmora, Ontario, and associated claims areas. In 2012, remediation of the mine was completed and the processing facility was sold. The Ontario regulator retained a security deposit for further surface and groundwater sampling and geotechnical monitoring, which will continue until 2017, at which time Sherritt expects to be in a position to release the security and begin the sale of the property.

### Current Operations

All of our mining assets that are currently operational have more than 20 years of resources and production capacity in their lifecycles. Each has up-to-date closure plans that meet host jurisdiction regulations and cost estimates that we believe reasonably and appropriately address the liabilities at each site.

In 2016, Ambatovy continued its work on a mine restoration strategy, including developing comprehensive cost estimates. The operation also engages in planning discussions on a quarterly basis with our finance department about projected environmental rehabilitation obligation costs.

At Fort Saskatchewan, our closure plan incorporates a set of robust considerations which account for both likely and unlikely obligations that we may need to address, and our current cost estimates cover the reasonable obligations.

For our OGP operating sites, all assets will revert back to the Cuban state for closure, as outlined in our permits and related agreements.

For information on our reclamation activities in 2016, please refer to [Performance in Biodiversity and Land](#).



## ENGAGING STAKEHOLDERS AND BENEFITTING COMMUNITIES

### CASE STUDY

### COMMUNITY INVESTMENT IN CUBA

Since we began operating in Cuba more than 20 years ago, we have always invested in the development of communities near our sites.

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**Effective stakeholder engagement enables us to build and strengthen social license. It is crucial for building mutual understanding, support and benefits with host communities, governments, workers and business partners. For mining and energy companies like ours to be truly sustainable, we must establish and maintain productive relationships with our stakeholders and maximize the shared benefits of our activities. That is what contributes to long-term prosperity and positions those that do it well to be the partner of choice.**

**We take a thoughtful, sincere and ethical approach to engaging stakeholders and catalyzing the development of sustainable communities. We recognize that a significant part of our role is to help build human and institutional capacity wherever we operate so that local communities can achieve their development goals.**

#### **In 2016, we:**

- Participated in more than 750 community meetings and 236 government meetings across Sherritt
- Recorded a more than 45% drop in the number of community grievances filed compared to the previous year, due in large part to successfully addressing the longer-term impacts of Ambatovy’s construction activities
- Recorded 10 incidents with the potential to affect our social license. The majority involved significant worker and public safety incidents or near-hits. Eight such incidents were recorded in 2015.
- Began implementing enterprise-wide standards for stakeholder engagement and community investment
- Signed a joint declaration with the United Nations System in Madagascar to co-operate on areas of common interest, including: social and economic development, good governance and human rights
- Contributed over \$750 million in economic benefits to host communities and countries

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# STAKEHOLDER ENGAGEMENT

## MANAGEMENT APPROACH

Stakeholder engagement is critical for establishing a mutual understanding of one another’s needs, interests, aspirations and concerns. That perspective is a key input for making decisions to support business objectives related to growth, risk management and operational excellence, and for collaborating to address local stakeholder priorities. Simply put, constructive stakeholder relationships are essential to securing and maintaining our social license to operate and creating mutually beneficial outcomes.

Our approach to stakeholder engagement is to systematically identify our stakeholders and engage with them through ongoing dialogue to share information about our business, respond to questions, listen to their observations and act on their concerns, as appropriate.

In general, we prioritize our level of engagement with different stakeholder groups based on their proximity to – and interest in – our activities and their ability to influence our business. At the operational level, the practical outcome of this prioritization is that our workforce, business partners, local communities and host governments tend to be our most important stakeholder groups. The diagram below shows our key stakeholder groups at both the corporate and operational levels.

SHERRIT'S KEY STAKEHOLDER GROUPS		
<b>EMPLOYEES AND THEIR REPRESENTATIVES</b>	<b>COMMUNITIES</b>	<b>GOVERNMENT</b>
<b>FINANCIAL COMMUNITY</b>	<b>BUSINESS PARTNERS</b>	<b>CUSTOMERS AND SUPPLIERS</b>
<b>NGOs/CIVIL SOCIETY</b>	<b>MEDIA</b>	<b>INDUSTRY PEERS AND ASSOCIATIONS</b>

Our engagement tactics vary based on the nature of the interaction and the stakeholder groups involved. For instance:

- We engage regularly with local communities and employees through formal meetings and town halls, small-group and one-on-one interactions, surveys and grievance mechanisms.
- We work closely with our business partners through governance bodies and ongoing discussions to address material issues and opportunities.
- Our procurement and marketing teams are in constant communication with our suppliers and customers, to ensure smooth operations and customer satisfaction.



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**JOINT FACT FINDING AT AMBATOVY TO ADDRESS COMMUNITY CONCERNS**  
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**CASE STUDY**  
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- Our investor relations department manages proactive and reactive interactions with investors, analysts and media, always in accordance with securities requirements.
- We meet with government officials in our home country and operating jurisdictions to build relationships, manage regulatory affairs and advocate on policy issues of importance.
- We manage partnerships with developmental non-governmental organizations and respond to advocacy groups, as needed.
- We take an active role in various industry associations, to advance sector-wide concerns, align with broader expectations, gain a broader perspective on industry, and contribute to innovation.

### Corporate Standards to Support Stakeholder Engagement

We have specific requirements for engaging investors, media, government and employees; however, to ensure there is a consistent approach to stakeholder engagement across the company, our Stakeholder Engagement Standard applies enterprise wide. The standard describes our expectations for stakeholder identification and mapping, annual engagement planning, engagement processes and practices, how to record dialogue, and how to respond to feedback and views received from stakeholders. We also have a complementary Indigenous Relations Standard that sets out our commitment to building mutually beneficial relationships with indigenous peoples affected by our activities in a way that recognizes and respects their unique rights and cultural attributes.

An important aspect of engaging with our stakeholders and building social license is listening and responding to community concerns and incidents. Our ongoing community relations activities are designed to capture and resolve most of these issues before they escalate. But for those issues that do, it is important to have a credible community grievance mechanism in place. As described under [Human Rights](#), all sites have some type of mechanism in place. We also developed a company-wide Grievance Mechanism Standard in 2016 to provide clear expectations on how we collect, classify, investigate, respond to and close out operational-level community grievances. Implementation will continue into 2017.

### Diverse Operating Environments

Although we see the value of taking a structured and consistent approach to stakeholder engagement at all of our sites, the breadth and depth of engagement activities will vary greatly, given the disparate nature of each of our operating environments. Our Fort Saskatchewan refinery has been in operation since 1954 and is located within the city limits of a well-developed urban area near Alberta's capital. The refinery is situated within an industrial zone with several other heavy-industry businesses. Local residents are familiar with the nature of industrial activities, including their benefits and potential risks. Because of this level of awareness and understanding, and our mature relationships in the community, we can take a practical and targeted approach to our engagement activities with the community, government and industry. Watch this [video](#) to learn more about life in Fort Saskatchewan.

In Cuba, we have two longstanding joint ventures with state-owned entities, and have an economic association with the government to operate our Oil & Gas business. As such, our engagement is focused on our partners and the central government. For community investment initiatives, we work closely with provincial and municipal governments and with donors and non-governmental organizations that have a presence on the island. We see opportunities to build on our good relations with the government to ensure our evolving approach to engagement aligns with the Cuban operating environment, which itself is becoming more accessible to foreign investors.

Our most robust stakeholder engagement program takes place at Ambatovy, given its size and location in the biodiverse and impoverished country of Madagascar. Ongoing dialogue through several channels with local residents, the host government and a variety of civil society organizations has been, and continues to be, important in building mutual understanding, managing expectations, and earning and maintaining our social license.

**PERFORMANCE**

Community Relations

	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Total
Number of community meetings	690	39	7	14	750

We continue to engage regularly with the communities near our operating sites in all of our jurisdictions. We took part in 750 community meetings in 2016, and are pleased to report that there were no significant community incidents or disruptions during the year. (As mentioned under [Health and Safety](#), there were two community fatalities in 2016, but they were managed responsibly and have not resulted in any community ill will.)

Ambatovy held a total of 690 community meetings during the year. Significant themes included Ambatovy’s operations, impacts and benefits to Madagascar; local governance; royalties’ distribution planning; human rights; grievance management; resettlement and land use around the mine; rumours and misinformation; public health and safety awareness; water quality; community-based environmental conservation; and security awareness.

Fort Saskatchewan participated in a total of 39 community meetings in 2016. This participation included direct engagements with municipal authorities, educational institutions, charitable organizations and industry, open houses, and multi-stakeholder meetings such as those led by the Northeast Capital Industrial Association. These interactions provide us with insights into the cultural, social, political and industrial fabric of the community, as its aspirations and concerns evolve. In 2016, engagements were also framed around the Operating Approval renewal process which was initiated during the year. The permit renewal is not due to the provincial regulators until early 2018; however, the Fort Saskatchewan site has been engaging early and often on this topic.

We also make special efforts to stay connected with former employees. As the refinery has been operating for more than 60 years, there are many multi-generational families of workers – as well as “alumni” – living in the area who remain interested in the company and who serve as our informal ambassadors. For many years, we have been contributing to the Sherritt Seniors’ Club, whose membership consists of Sherritt retirees based in Fort Saskatchewan. They take tremendous pride in their years at Sherritt and are among the company’s greatest ambassadors. As a token of appreciation, Sherritt supports an annual Club dinner, where senior management gets the opportunity to interact informally with this important stakeholder group, and provides an update on the company.

In Cuba, we participated in 21 meetings involving municipal and provincial authorities in Moa and the communities near our Oil & Gas and Power facilities. Meetings primarily related to the planning, execution and review of community development projects. Much like Fort Saskatchewan, Moa is an industrial town. Most of the local population works in the mining industry in some way. Throughout the year, the Moa Joint Venture supports – and participates in – cultural, sporting and other community events in Moa. There is also a weekly newsletter produced by workers at the Moa site that has been in circulation since 1979 and is very well read by the local community.

### Community Grievances

In 2016, Ambatovy received 116 community grievances. Of the 116 grievances received, 100 related to impacts on society, predominantly rice fields impacted by construction activities, and a few were linked to other livelihood impacts, land acquisition and other issues. In response to the key issue of impacted rice fields, Ambatovy worked to restore rice paddies, where possible, and compensate farmers for their losses. Sixteen grievances were environmental in nature, relating to water contamination by elevated levels of manganese (described under [Water Quality](#)), and odour resulting from gas released at the plant.

We recorded a 45% year-over-year decrease in the number of grievances received compared to 2015. This drop builds on a positive trend from the previous year, which saw a 62% decline in grievances from 2014. We attribute this decrease to the success of face-to-face consultations, significant progress on the completion of rice field restoration (which was a considerable issue during construction), as well as the increasing maturity and stability of our operations.

No other community-related grievances were reported across the organization.

In 2016, Sherritt developed a [Grievance Mechanism Standard](#), which is being implemented across the company.

### Government Relations

In 2016, government relations activities focused on building key relationships and addressing regulatory and political risks and opportunities in the jurisdictions where we operate. Throughout the year, we met regularly with high-ranking representatives of national, provincial, regional and local governments, state-owned enterprises, diplomatic missions and multilateral organizations. Priorities included:

- Engaging and broadening relationships with the Cuban government and state-owned companies to advance mutually beneficial projects, secure approvals for regulatory matters, and support Cuba's developmental priorities
- Addressing governance challenges in Madagascar to ensure laws and regulations are respected and remain stable and predictable, especially in the lead-up to the 2018 presidential election campaign
- Advocating for climate change regulations in Alberta that are science based and fair to trade-exposed industries
- Initiating discussions with the regulator on the Fort Saskatchewan site's operating permit renewal
- Advocating for approvals of community development projects and funding for Cuba and Madagascar, including disaster-relief initiatives
- Building and maintaining relationships with the relatively new Alberta and Canadian governments
- Encouraging stronger Canada–Cuba and Canada–Madagascar relations

In January 2016, we signed an important agreement with the Government of Madagascar to secure payments worth several millions of dollars in value-added tax owed to Ambatovy. The terms of the agreement were fairly well respected all year.

In October, we had the opportunity to interact with Canada's delegation to Cuba, led by the Prime Minister. We were encouraged by this state visit and other exchanges between the Canadian and Cuban governments, as a means of strengthening bilateral relations.

In November, La Francophonie, a summit of French-speaking countries, was held in Madagascar. Canada's delegation was again led by the Prime Minister. As Canada's largest foreign investor in Madagascar, we had the opportunity to engage at high levels with both the Canadian and Malagasy governments in the lead-up to and during the summit.

Additional information on our political and regulatory risks can be found in our [2016 Annual Information Form](#), including an overview of how we are affected by the U.S.'s Cuba embargo and the Helms–Burton Act, which, among other things, prohibit us from doing business in the U.S. or with American entities.

### Partnerships

Partnerships with non-governmental organizations (NGOs) and other civil society organizations continue to play a key role in our approach to addressing stakeholder issues and opportunities. Over the years, we have enjoyed mutually beneficial relationships with NGOs in Madagascar, Canada and Cuba. In 2016, we had more than 40 active partnerships with local, national and international NGOs and civil society organizations. The vast majority of these partnerships involved our work at Ambatovy in Madagascar, in particular to support environmental conservation and management. For a complete list of Ambatovy's active partnerships, visit the [Partnerships](#) page on Ambatovy's website.

In 2016, Ambatovy partnered with the United Nations in Madagascar, signing a joint declaration to co-operate in areas of common interest, including social and economic development priorities of the Alaotra-Mangoro and Atsinanana regions and improving the standard of living of local populations. Both parties have worked in the fields of child protection education, HIV/AIDS awareness and prevention, and emergency preparedness for a number of years.

In 2016, Ambatovy also made progress on the three significant NGO partnerships that it entered into in 2015. Two involved Conservation International and Asity Madagascar (which is associated with BirdLife International) in conservation work in biodiversity offset areas that Ambatovy is responsible for (refer to [Biodiversity and Land Management](#) for more information). A third partnership was established with [Search for Common Ground \(SFCG\)](#), a well-respected peacebuilding and conflict transformation NGO. The original partnership agreement is centered on accomplishing two primary objectives:

- To enhance the capacity of Ambatovy staff and local community members to engage in constructive, solution-oriented dialogue, in order to build trust and improve mutual comprehension among both groups so they can work through issues of concern more effectively, and
- To strengthen stakeholder understanding of the role of local authorities and communities in advancing good governance, and the role of government and other actors (NGOs, industry, etc.) in building sustainable communities and supporting participatory development, with the aim of enhancing the broader capacity for achieving community development aspirations.

A Phase II with SFCG was negotiated over 2016, and signed in early 2017, which will focus more specifically on the impending presidential election in Madagascar in 2018. The SFCG partnership work is also expanding geographically, to work in the areas of the pipeline and Toamasina.

In 2016, there were new partnerships established as well. Ambatovy facilitated a partnership with the population of the Vohitrambato community and a Malagasy company called Homéopharma that focuses on developing and producing natural products for health and well-being, to plant 8,000 noni trees (noni is a tree in the coffee family used to help treat a variety of health problems such as diabetes, high blood pressure, arthritis, aches and pains, inflammation, infections, etc.). The objective of the partnership is to help the community gain an additional source of

**“We are very pleased with our ongoing collaboration with Ambatovy, because the involvement of the private sector is essential in the sustainable development of Madagascar.”**

**– Violet Kakyomya, United Nations Resident Coordinator in Madagascar**

regular, reliable income. Farmers in Vohitrambato have received training in agriculture techniques and fruit growing. Homéopharma financed the purchase of the noni seedlings, and will provide technical advice for the noni production, ensure monitoring and quality control of the plantations, and will buy the noni crop from farmers.

### Multi-Stakeholder Initiatives and Associations

In 2016, we participated in 21 multi-stakeholder initiatives and industry associations to engage in constructive dialogue and/or strategic activities with stakeholders that share a common interest in the issues that matter to our business. Below is a list of the groups we participated in last year. Significant topics that they pursued included application of voluntary standards, understanding and influencing regulatory developments in various jurisdictions, sharing and developing best practices, improving governance in the sector, identifying emerging trends, opportunities and risks, and broadening networks and perspectives.

- [American Chamber of Commerce in Madagascar](#) (G, \$)
- [Business and Biodiversity Offsets Programme](#) (C, S, \$)
- [Business Council of Canada](#)
- [Calgary Petroleum Club](#)
- [Canadian Council on Africa](#) (G)
- [Chambre des Mines de Madagascar](#) (G, S, C)
- [Cobalt Development Institute](#) (G, S, C)
- [Devonshire Initiative](#) (S)
- [Diadem Group](#)
- [Extractive Industries Transparency Initiative](#) (G, S, C)
- [Fertilizer Canada](#) (S, C)
- [Groupement des Entreprises de Madagascar](#)
- [Groupement des Entreprises de Toamasina](#)
- [London Benchmarking Group Canada](#)
- [Nickel Institute](#) (G, S, C)
- [Northeast Capital Industrial Association](#) (G, S, C)
- [Northeast Region Community Awareness and Emergency Response](#) (G, S, C)
- [Prospectors & Developers Association of Canada](#) (C, S)
- [Syndicat des Industries de Madagascar](#) (C)
- [Voluntary Principles Initiative](#) (S)
- [Western Canadian Shippers' Coalition](#)

G – Held a position on the governance body in 2016

C – Participated in projects or committees in 2016

\$ – Provided substantive funding beyond routine membership dues in 2016

S – Views membership as strategic



CASE STUDY

## JOINT FACT FINDING AT AMBATOVY TO ADDRESS COMMUNITY CONCERNS

Ambatovy has established a multi-stakeholder process called Joint Fact Finding (JFF) to address community concerns and to come to a common understanding of disputed technical information or facts. The JFF process involves the participation of subject-matter experts and decision-makers from Ambatovy, as well as key stakeholders from the community, working collaboratively to address community concerns, reach conclusions and recommend actions. These efforts have been very successful in improving communication and building trust and credibility between our operations and the community by correcting misinformation, addressing rumours and resolving disputes. Our first JFF addressed a community concern regarding air emissions from our plant and led to efforts to educate local residents and dispel fears regarding the emissions and whether they could have an adverse effect on community health. As part of our commitment to continuous improvement, we recently retained a consultant to perform a review of the JFF process to evaluate its effectiveness and to recommend improvements. Opportunities for improvement include: strengthening internal alignment within Ambatovy to ensure everyone involved has a common understanding of any particular issue that needs to be resolved; and communicating more effectively with communities by using less scientific language, which generally does not resonate well with them. The evaluation report also prioritized topics that could be addressed through the JFF approach, such as impacted land along the pipeline and mine lease area incursions – both of which have potential to be a source of conflict with the community.

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**Joint Fact Finding (JFF) is a multi-stakeholder process that involves subject-matter experts and decision-makers from the company and key stakeholders from the community, working collaboratively to address community concerns, reach conclusions and recommend actions.**





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**In 2017, Canada will be the host country for WED, which will be themed “Connecting People to Nature”. Sherritt began planning its participation in 2016.**

CASE STUDY

## **CELEBRATING WORLD ENVIRONMENT DAY**

World Environment Day (WED) has been celebrated on June 5 every year since 1972. For nearly 40 years, it has served as a global platform to analyze the environmental protection efforts in 100 countries. The theme adopted for 2016 was “Let’s stamp out the illegal trade of our wildlife”.

Sherritt regularly participates in WED activities. In Madagascar this year, an inter-regional awareness-building event – organized by the Ministry of Environment, Ecology and Forestry – was held near Ambatovy’s operations. It brought together regional and national groups and experts involved in environmental protection – including representatives from Ambatovy. At a more local level, celebrations were held in districts near the mine, which is in a primary forest. Ambatovy was involved in organizing both local and inter-regional events. They provided an opportunity for the company to highlight its actions that contribute to species preservation and environmental protection. In Brickaville, Ambatovy also set up a booth to welcome visitors who were eager to learn more about its environmental program.

In Cuba, Sherritt was involved in WED celebrations that took place in Moa. The Moa site helped to organize an art competition for local schoolchildren. They were given the task to create environment-themed paintings. Awards were given out at a ceremony, which included displays from artists, performances from local singers, games and dessert. Sixty-three children of our Moa workers participated in the competition.

# COMMUNITY DEVELOPMENT

## MANAGEMENT APPROACH

Now more than ever, stakeholders – from local communities to host-country governments and civil society organizations – expect to experience tangible benefits and increases in their standard of living from natural resource extraction and processing. This is particularly true in jurisdictions where economic development has been lagging, infrastructure is lacking and human development indices are low.

Within the industry, there is recognition that mining and energy companies have a role that extends beyond the simple provision of returns to shareholders. For a company to be truly sustainable, it must build broad social license and demonstrate that it delivers a net-positive benefit to local communities and to society as a whole. That is why benefitting people and helping catalyze the development of sustainable communities is so important to us.

Managing the expectations of local stakeholders, particularly in less-developed jurisdictions, is paramount, especially as we struggle with the low commodity price environment. When a large business enters an undeveloped jurisdiction, there are often expectations that it will solve many, if not all, of the area’s inherent socio-economic challenges. We are committed to helping improve the lives of people near our operations, but we rely on host-country governments to discharge their obligations regarding basic services, particularly in the areas of health, education and infrastructure.

Because of the diverse operating contexts of each of our sites, the range of community development priorities varies dramatically. Community needs differ significantly from Canada to Cuba to Madagascar. As such, we have adopted a flexible approach to community development, while at the same time establishing company-wide guidance that ensures our values and expectations are preserved. In each jurisdiction, our investment decisions strive to support:

- Socio-economic development
- Public health and safety
- Natural and cultural heritage

In addition, our Community Investment Standard aligns with evolving good practice to maximize the value of our contributions, both to the recipients and to our business. (The standard was assessed by [London Benchmarking Group \(LBG\) Canada](#) as part of the design process.) It requires that we establish employee-led community investment review committees (CIRCs) at divisional/site and corporate levels to provide governance and oversight of decision-making. We take great care to avoid real or perceived conflicts of interest and to ensure spending complies with our business ethics and anti-corruption policies. All community investment reporting is now assured by LBG Canada on an annual basis.

**“Ambatovy demonstrates a strong commitment to community engagement, both at senior management and technical staff levels.”**

**– Hilde Demain, Country Manager, Search for Common Ground**



CASE STUDY

**SCHOOL RENOVATIONS IN MADAGASCAR**

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CASE STUDY

**WORKING WITH LOCAL BUSINESSES AT AMBATOVY**

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PERFORMANCE

Economic Benefit Footprint

When evaluating the overall financial impact that our presence delivers at local and national levels, we measure our economic benefit footprint, which includes payment of taxes, royalties and regulated fees to governments; the procurement of goods and services at the local and national levels; payment of local salaries, wages and employment benefits; and community investment spending. In 2016, we contributed more than \$750 million in economic benefits to local communities and host governments around the world. The following table presents a breakdown of our economic benefit footprint for the year.

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Total Sherritt
Payments to governments	33,405,554.90	7,908,501.00	20,300,000.00	19,393,762.56	81,007,818.46
Local/national procurement	279,549,430.94	85,858,947.00	90,400,000.00	38,546,615.91	494,354,993.85
Local salaries, wages and benefits	34,320,593.86	107,201,093.00	55,000,000.00	13,824,198.27	210,345,885.13
Community investment	5,995,027.00	17,457.00	329,152.00	311,186.00	6,652,822.00
Economic benefit footprint*	353,270,606.70	200,985,998.00	166,029,152.00	72,075,762.74	792,361,519.44

\* This calculation includes the sum of the value of spending on local suppliers, local salaries and wages, payments to government, and community investment. All reported on a 100% ownership basis.



Approximately 60% of our benefit footprint results from the purchase of goods and services from local- and national-level suppliers serving our operations. Given that Madagascar did not have a large-scale mining industry in place prior to our arrival, the Ambatovy Joint Venture has invested great effort in developing a local supply chain. The [Ambatovy Local Business Initiative \(ALBI\)](#) provides support to local businesses and entrepreneurs through training, mentoring and capacity-building programs. ALBI was created to fulfill Ambatovy’s “buy locally, hire locally” policy. To this end, ALBI is fully integrated within Ambatovy’s Supply Chain Management Department to identify



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**TRAINING YOUTH WHILE REDUCING WASTE**  
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**ROYALTIES GOVERNANCE AT AMBATOVY**  
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local businesses capable of responding to company and market needs. By maximizing local procurement, Ambatovy provides a much-needed impetus to the Malagasy economy and to entrepreneurs. Read about ALBI's work in this [case study](#) and go [here](#) to learn about a small but promising ALBI-funded project involving wood recycling.

Local salaries and wages account for our second-most-significant contribution, reflecting the importance of our sector in raising the standard of living and creating wealth in communities adjacent to our operating sites – in both developed and developing jurisdictions – through well-paying jobs.

Our payments to governments in 2016 also represented a significant contribution to host countries and communities, and increased over previous years at Ambatovy (due to now being an operating mine) and Fort Saskatchewan (due to increase in tax rates and compliance costs provincially). We strive to ensure that these payments are openly and transparently reported, so that our contributions to national, regional and local governments are recognized, and to encourage accountability for the spending of those funds, which should go towards building essential infrastructure and increasing access to education and healthcare, especially for populations near our operations. As a Supporting Company of the [Extractive Industries Transparency Initiative \(EITI\)](#), we are committed to the transparent reporting of payments to governments. Ambatovy has actively encouraged and supported the Government of Madagascar's EITI candidacy and reporting efforts over the last several years and is an active member of Madagascar's National EITI Committee. Visit this [website](#) to review EITI Madagascar's latest report, which was published in 2016. Throughout the year, Sherritt also developed an internal process to meet the reporting requirements of the Government of Canada's [Extractive Sector Transparency Measures Act \(ESTMA\)](#), which – much like EITI – requires companies in the sector to publish payments to governments in all jurisdictions. In 2017, Sherritt will publish its first ESTMA report, which will contain 2016 data.

In Madagascar, Ambatovy is participating in a collaborative approach with other national and international stakeholders to develop a mechanism to distribute royalty payments to local communities. Read this [case study](#) to learn more.

### Community Investment

Community investment expenditures represent slightly less than 1% of our total economic benefit footprint.

The table and graph below show the relative focus areas of Sherritt's community investment, with the vast majority of investment contributing to socio-economic development in all jurisdictions where we are present.



CASE STUDY

COMMUNITY INVESTMENT  
IN CUBA

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**“Sherritt has co-operated with Cuba and has taken part in the country’s development plans for more than two decades, to support the company’s commitment to being a responsible foreign investor and our mutual priorities for sustainable economic development that benefits our country.”**

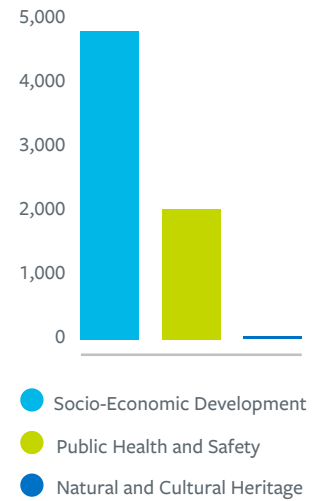
**– H.E. Julio Garmendía, Cuba’s Ambassador to Canada, Ambassador Extraordinary and Plenipotentiary of the Republic of Cuba**

Focus Areas

	Investment	Percentage
Socio-economic development	\$4,808,580	70%
Public health and safety	\$2,014,329	29%
Natural and cultural heritage	\$22,785	1%
<b>Total</b>	<b>\$6,845,694</b>	<b>100%</b>

Note: These figures are reported on a 100% ownership basis. They also include: contributions from corporate and administrative offices that do not directly benefit communities around our operating sites; all in-kind and leveraged investments; voluntary contributions from our entire workforce, including temporary and contract workers; all program management costs; and all community investments that were made in 2016, regardless of the eligibility criteria set out in the audit conducted by London Benchmarking Group Canada. These considerations account for the discrepancy between this community investment total and that used in the Economic Benefit Footprint table and the G4-EC1 table.

(C\$ 000s)



Overall, Sherritt’s total amount allocated towards community investment in 2016 decreased from the previous year. This was largely due to a drop in spending at Ambatovy, which is focusing more on relationship building and engagement with the community and less on supporting big development projects. In 2016, public health and safety spending was higher than in the previous year, reflecting the significant amount of support that Sherritt provided to relief efforts for natural disasters and emergencies in its host jurisdictions.

As was the case in 2015, Ambatovy is responsible for allocating the most significant portion of Sherritt’s community investment budget, given the significant community development needs in Madagascar. Ambatovy’s central mechanism for investing in communities is the Social Investment Fund (SIF), a one-time \$25 million allocation established in 2012 in partnership with the Government of Madagascar. The SIF supports several projects, such as updating public institutions, like schools and electrical generators; and building new ones, like markets and roadways. In order to qualify for SIF funding, projects require support from beneficiary communities, the government and Ambatovy. In 2016, spending was allocated to the 17 projects approved in 2015. The SIF has almost been entirely allocated to projects.

In Cuba, we have been providing about half a million dollars in annual funding for important projects relating to public health and safety, transportation, sanitation, education and culture in communities adjacent to our operations for more than 10 years, as part of our longstanding commitment to sharing prosperity with the Cuban people. Every project we fund is directly linked to Cuba’s national, provincial and local development priorities. We believe that Cuba provides a model in development planning for other jurisdictions, and we are proud to support the country’s efforts. Refer to this [case study](#) for additional information on our contributions to Cuba in 2016.

At the Fort Saskatchewan site and in Calgary and Toronto, where we have administrative offices, community investment is much less significant and is used to support employee engagement, philanthropy and meeting the needs of the less fortunate. Our corporate office in Toronto makes strategic investments to support divisional and site-level priorities, such as conservation programs in Madagascar and



community health in Fort Saskatchewan. In 2016, the corporate office partnered with CARE Canada and the Government of Canada on a multi-year, multi-million dollar project to support sustainable economic growth and entrepreneurship in Cuba. Although funding has been allocated by Sherritt and the Government of Canada, the project is still pending approval from the Cuban government. Leveraging opportunities that provide broader funding and stakeholder support, such as this one, help to strengthen our reputation as the partner of choice, committed to “shared prosperity”.

In 2016, Sherritt also directed significant resources to disaster relief, including funding to the Canadian Red Cross for the wildfire recovery efforts at Fort McMurray, Alberta; to the International Committee of the Red Cross for Hurricane Matthew relief in the Bahamas, where Sherritt has a marketing office; and to the United Nations Development Programme for rebuilding efforts in Cuba as a result of the same hurricane.

### Employee Volunteerism

Sherritt employees have long been active participants in the communities where we operate, both during and outside of work hours. With implementation of Sherritt’s Community Investment Standard underway, we aim to further encourage and better organize employee volunteerism through a variety of delivery options.

In 2016, 36 Ambatovy employees worked with a local non-governmental organization, Mitia, to support the implementation of a school/community nutrition project at one of the resettlement villages in Madagascar. Volunteers helped families and school instructors prepare, cook and serve meals to 315 pupils. Supported by Ambatovy, the school canteen has also created a school vegetable garden.

Employees at the Moa site contributed to saving lives through the employee blood donation program. In 2016, nearly 300 workers donated nearly 150 litres of blood to the regional hospital.

In 2017, we will uphold our longstanding community investment commitments and continue to pursue strategic opportunities that allow us to leverage partnerships, establish a flagship project and build our reputation and social license, while being conscious of the financial challenges that affect our ability to make such investments.

Through an employee giving initiative at the Fort Saskatchewan site, employees elected to donate more than \$50,000 of their pay to the United Way, supporting various local charities, in 2016.





CASE STUDY

## SCHOOL RENOVATIONS IN MADAGASCAR

The purpose of Ambatovy’s Social Investment Fund (SIF) is to provide or improve infrastructure and other public services in the areas around our operations in Madagascar. In 2016, Ambatovy used the SIF to renovate the Technical and Vocational High School in Toamasina, where the plant site is located. This project involved renovating workshops for carpentry, metal structure, building and public works, general mechanics and auto mechanics. In addition, building electricity and sanitary facilities were upgraded for staff and students. The newly renovated facilities were opened during a ceremony on October 29, 2016. In attendance were the President of the Republic of Madagascar and the Minister of Work, Technical and Vocational Training, among other stakeholders. The cost of the project was approximately US\$400,000.

It is expected that the renovation of these workshops will help students to gain highly relevant hands-on experience and new skills; it will also support the employability of graduates when they enter the job market.

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**“Technical and vocational training is among the leading pillars of development and we know that it is of particular importance for the Government of Madagascar. Ambatovy is proud to contribute to improving the infrastructure that will prepare the future talent of the Atsinanana Region.”**

**- Louis Roland-Gosselin, Vice President, Sustainability, Ambatovy**



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**We have implemented a range of programs and have made support tools available to local businesses and entrepreneurs so they can provide Ambatovy with goods and services that meet our standards of procurement and quality.**

CASE STUDY

## **WORKING WITH LOCAL BUSINESSES AT AMBATOVY**

Ambatovy is committed to maximizing economic returns to our local communities. We have implemented a range of programs and have made support tools available to local businesses and entrepreneurs so they can provide Ambatovy with goods and services that meet our standards of procurement and quality. The [Ambatovy Local Business Initiative \(ALBI\)](#) was created during construction to support our commitment to buy locally. In 2016, 868 local suppliers provided Ambatovy with goods and services across 40 sectors of business including construction, transportation, cleaning and catering services.

Examples of locally sourced materials include pallets used for shipping nickel and cobalt as well as uniforms distributed to our employees. The exact number of jobs created to indirectly support Ambatovy's procurement needs is difficult to calculate – however, we know that almost 500 jobs were created to build wood pallets; manufacture uniforms; and recycle plastic, tires and wood.



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**The Cultural and Social Centre is an independent educational organization that runs a training centre for disadvantaged youth from Toamasina, teaching them practical skills to find jobs or start their own small businesses.**

CASE STUDY

## TRAINING YOUTH WHILE REDUCING WASTE

Ambatovy has a large stock of pallets and wooden crates stored at the plant site. In order to minimize waste, we turn to local businesses and organizations – such as the Cultural and Social Centre (CCS, in French) – to recycle and transform them into useful products they can sell. The CCS is an independent educational organization that runs a training centre for disadvantaged youth from Toamasina, teaching them practical skills to find jobs or start their own small businesses.

Through the [Ambatovy Local Business Initiative \(ALBI\)](#), we provide the CCS with up to 200 m<sup>3</sup> of used wood per month, as well as skills training, monitoring, mentoring and general business advice. The CCS has a workshop that recycles and transforms the wood not only into furniture and other daily-life objects, but also into fuel in the form of chip briquettes, helping to reduce the use of charcoal.

“We have one of the best-equipped workshops in Toamasina,” said the CCS’s director, Mr. Ratovonera. “So far, we have noted that our trainees can easily find jobs once they complete their training, and our best students are regularly sought after by several companies.” Over the long run, CCS expects that the wood-recycling initiative will be of significant benefit to the region in the areas of employment creation, entrepreneurship development and pollution reduction.

At the end of 2016, a new initiative for the recycling the wood at the mine site began with the local farmers’ association FIMIEN. Like the project with CCS, it aims to make use of used wood in the interest of preserving the environment and to provide income-generating opportunities for members of the association, including youth.



**The Tsaratanana (Good Governance) Project is a demonstration of the role that Ambatovy plays in helping catalyze discussions on transparency, and the equitable distribution and use of funds generated by our business.**

CASE STUDY

**ROYALTIES GOVERNANCE AT AMBATOVY**

At Ambatovy, we are actively involved in the Tsaratanana (Good Governance) Project to develop a credible mechanism for royalty distribution at the community level, as required by the Malagasy law for large mining investments. The project is overseen by a steering committee with representatives from various Malagasy government ministries (including the Presidency and the Prime Minister’s Office), as well as the Chamber of Mines and the Extractive Industries Transparency Initiative in Madagascar. The project’s aim is to provide recommendations to the national government on how best to distribute the royalties it receives from our business to the local jurisdictions that are impacted by our presence, and to ensure these funds are managed effectively, transparently and sustainably to help these communities achieve their aspirations.

A consulting firm was retained to help with this work. Over the past year, the firm has had consultations with key government representatives, donors and civil society groups, among others, and held consultations and workshops in the field with local authorities, traditional leaders and community members. The firm’s work led to the proposal of a mechanism for the management of the royalties that would divide them as follows:

- A portion would be paid directly to a dedicated treasury account belonging to the communities to cover their operating costs;
- A portion would be paid to a dedicated treasury account belonging to two inter-communal entities (one in each region where Ambatovy operates: Alaotra-Mangoro and Atsinanana) that would be created for joint investments in needed infrastructure, such as hospitals or technical schools; and
- The final portion would be paid to a dedicated treasury account belonging to a foundation that can earn interest and generate funds for the future, beyond the life of the mine.

In 2016, a subcommittee of legal experts from three key ministries – Madagascar’s Ministry of Mines, Ministry of Finance, and Ministry of Decentralization – was organized to review a draft decree for encoding the mechanism into law. In addition, work was underway to ensure the security of money transfers from the Treasury to the beneficiary communities, and review the proposed mechanism in more detail with multilateral institutions and international organizations.

Ambatovy is monitoring the preparation of the modification of the law on decentralization that would oblige communities to dedicate a certain level of investments at communal, inter-communal and foundational levels. Ambatovy is also gathering further information about the approach of Germany’s development agency, GIZ, in promoting sound accountability practices and good governance at the community level.

The proposed mechanism is expected to become encoded into law in 2017. This effort is another demonstration of the role that Ambatovy plays in helping catalyze discussions on transparency, and the equitable distribution and use of funds generated by our business.



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**In 2016, we invested more than \$500,000 in community projects across Cuba. Some of that amount went towards supporting Cuba's recovery efforts after Hurricane Matthew, but most of it supported community development projects in Moa, the municipality adjacent to our nickel mining joint venture, and Cardenas and Santa Cruz del Norte, communities near our Oil & Gas and Power facilities.**

#### CASE STUDY

### COMMUNITY INVESTMENT IN CUBA

Since we began operating in Cuba more than 20 years ago, we have always invested in the development of communities near our sites. In the mid-2000s, this effort, referred to as the Cuba Community Investment Program, took on a more formal structure and approach. Sherritt began working with local and provincial governments in Cuba to develop an annual community investment plan for purchasing equipment and goods to meet local development needs that aligns with national development priorities, today known in Spanish as the Lineamientos. The Cuban authorities would arrange for the installation or use of these items by local state-run agencies and organizations. This approach serves as a great example of effective community development planning, with highly capable local leaders setting clear development goals for their communities that a company like ours supports. Cuba's Minister of Foreign Investment and Trade recently confirmed that Sherritt is the only foreign investor in Cuba that has such a program in place.

Over the years, we have made several millions of dollars' worth of investments to support a range of community-development initiatives in Cuba, including a project to provide public lighting along the streets in communities near our OGP facilities. Those efforts improved visibility along many roads during the evening, contributing directly to public safety.

In 2016, we invested more than \$500,000 in community projects across Cuba. Some of that amount went towards supporting Cuba's recovery efforts after Hurricane Matthew, but most of the funds supported community development projects in Moa, the municipality adjacent to our nickel mining joint venture, and Cardenas and Santa Cruz del Norte, communities near our Oil & Gas and Power facilities. Investments included: the procurement of lighting and air conditioning units for public institutions, public buses, road-repair equipment and sporting equipment. Although many of these investments may seem small in scale, they do contribute to the quality of life of the Cuban people in communities around our operations.





## PERFORMANCE

This report was prepared in accordance with the GRI G4 Sustainability Reporting Guidelines – Core option, and showcases how we support international principles relating to sustainable development. All data are based on the calendar year, and all references to currency are in Canadian dollars, unless otherwise noted.

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## 2016 TARGETS

The table below is a summary of the progress we made in 2016 against annual targets for driving improvements in our sustainability performance, building industry-leading processes for sustainability management, and receiving external recognition as a leader in responsible mining and energy production. Targets are reviewed before the beginning of the calendar year and adjusted to reflect planned organizational changes and initiatives, current events, and business priorities.

We achieved 9 of our 11 targets in 2016, and will look to build on this performance in 2017.

### PERFORMANCE

2016 Target	Performance	Comments
Achieve zero fatalities across Sherritt	<input type="checkbox"/>	Four fatalities occurred at the Moa site.
Achieve a total recordable injury frequency (TRIF) of less than 0.36 injuries per 200,000 work hours	<input checked="" type="checkbox"/>	Our annual TRIF rate was 0.25.
Achieve a lost time injury frequency (LTIF) of less than 0.13 injuries per 200,000 work hours	<input checked="" type="checkbox"/>	Our annual LTIF was 0.11.
Achieve zero high-severity environmental incidents across Sherritt	<input checked="" type="checkbox"/>	None were recorded.
Implement initiatives to reduce greenhouse gas (GHG) emissions	<input checked="" type="checkbox"/>	Moa's new acid plant, built in 2016, is expected to decrease GHG emissions by 100,000 tonnes per year.  The introduction of electric vehicles at Ambatovy in 2016 will reduce diesel-based emissions.
Record a year-over-year reduction in community grievances	<input checked="" type="checkbox"/>	A 45% decrease in the number of community grievances from the previous year was recorded.
Achieve zero work stoppages caused by community protests across Sherritt	<input checked="" type="checkbox"/>	None were recorded.

### PROCESS

2016 Target	Performance	Comments
Improve leading health and safety indicators at all sites	<input checked="" type="checkbox"/>	We exceeded our annual leading indicator targets at all sites.
Improve the quality of sustainability reporting	<input checked="" type="checkbox"/>	We added indicators in 2016 and exceeded GRI's G4 – Core reporting requirements. Our Bloomberg Environmental, Social and Governance Disclosure Score increased by 21% from 2015.
Carry out a multi-year plan to implement minimum sustainability standards across the company	<input type="checkbox"/>	Good progress was made in 2016, but not all implementation targets were met during the year.

### RECOGNITION

2016 Target	Performance	Comments
Receive external recognition for Sherritt's sustainability performance	<input checked="" type="checkbox"/>	Sherritt was shortlisted to the Future 40 Responsible Corporate Leaders in Canada by Corporate Knights. Ambatovy's scientific poster on orchids received first prize at the International Orchid Conservation Congress in Hong Kong.

# GRI INDEX

We have aligned our report with the Global Reporting Initiative’s G4 Guidelines. See [www.globalreporting.org](http://www.globalreporting.org) for more information.

## GENERAL STANDARD DISCLOSURES

GRI Indicator	Description	Location	SDG
G4-1	Statement from the most senior decision-maker of the organization	<a href="#">CEO Message</a>	
G4-3	Name of the organization	<a href="#">About Sherritt</a>	
G4-4	Primary brands, products and services	<a href="#">About Sherritt</a>	
G4-5	Location of organization’s headquarters	<a href="#">About Sherritt</a>	
G4-6	Number of countries where the organization operates, and names of countries where the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report	<a href="#">About Sherritt – Map/Description</a>  <a href="http://www.sherritt.com/English/Our-Business/default.aspx">http://www.sherritt.com/English/Our-Business/default.aspx</a>	
G4-7	Nature of ownership and legal form	<a href="#">About Sherritt</a>	
G4-8	Markets served	<a href="#">About Sherritt – Divisions/Products</a>	
G4-9	Scale of the reporting organization	<a href="#">About Sherritt – 2016 Key Indicators</a>  <a href="#">2016 Financial Report – Page 72</a>	
G4-10	Employee/workforce details	<a href="#">Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Workplace Diversity</a>  <a href="#">View Data Table – See page 123</a>	 
G4-11	Percentage of total employees covered by collective bargaining agreements	<a href="#">Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Organized Labour, Grievances and Strike Action</a>  <a href="#">View Data Table – See page 123</a>	 
G4-12	Description of the organization’s supply chain	<a href="#">About Sherritt – Our Supply Chain</a>	
G4-13	Significant changes during the reporting period regarding the organization’s size, structure, ownership or supply chain	<a href="#">About Sherritt</a>  <a href="#">Operating Ethically – Economic Performance – Management Approach</a>	
G4-14	Whether and how the precautionary approach or principle is addressed by the organization	<a href="#">Providing a Safe and Rewarding Workplace – Public Safety – Management Approach</a>	

GENERAL STANDARD DISCLOSURES

GRI Indicator	Description	Location	SDG
G4-15	Externally developed economic, environmental and social charters, principles or other initiatives to which the organization subscribes or which it endorses	<p><a href="#">Our Approach – Sustainability Framework – Management Systems</a></p> <p><a href="#">Providing a Safe and Rewarding Workplace – Public Safety – Management Approach</a></p> <p><a href="#">Demonstrating Environmental Responsibility – Tailings Management – Management Approach</a></p> <p><a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Multi-Stakeholder Initiatives and Associations</a></p>	
G4-16	Memberships of associations and national or international advocacy organizations	<p><a href="#">Our Approach – Sustainability Framework – Management Systems</a></p> <p><a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Multi-Stakeholder Initiatives and Associations</a></p>	
G4-17	Entities included in the organization’s consolidated financial statements	<a href="#">2016 Annual Report – Overview of the Business – Pages 2–3</a>	
G4-18	Process for defining report content	<a href="#">Our Approach – Materiality</a>	
G4-19	Priorities identified	<a href="#">Our Approach – Materiality</a>	
G4-20	Boundaries – Internal	<a href="#">Our Approach – Materiality</a>	
G4-21	Boundaries – External	<a href="#">Our Approach – Materiality</a>	
G4-22	Effect of any restatement of information in previous reports	<a href="#">About This Report</a>	
G4-23	Significant changes from previous reporting in scope of priorities	<a href="#">About This Report</a>	
G4-24	List of stakeholder groups	<a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach</a>	
G4-25	Basis for identifying and selecting stakeholders	<a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach</a>	

GENERAL STANDARD DISCLOSURES

GRI Indicator	Description	Location	SDG
G4-26	Approach to stakeholder engagement	<p><a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach</a></p> <p><a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Multi-Stakeholder Initiatives and Associations</a></p> <p><a href="#">Providing a Safe and Rewarding Workplace – Employee Relations – Performance</a></p>	
G4-27	Topics raised through stakeholder engagement and response	<p><a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Relations</a></p> <p><a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances</a></p>	
G4-28	Reporting period	<a href="#">About This Report</a>	
G4-29	Date of most recent report	<a href="#">About This Report</a>	
G4-30	Reporting cycle	<a href="#">About This Report</a>	
G4-31	Contact	<a href="#">About Sherritt</a>	
G4-32	In accordance option	<p><a href="#">About This Report</a></p> <p>This report was prepared in accordance with the GRI G4 Sustainability Reporting Guidelines – Core Option.</p>	
G4-33	External assurance policy	<p>We do not currently have an external assurance policy, but we are in the process of reviewing whether to seek external assurance for future sustainability reporting.</p> <p>The 2016 report was not assured externally.</p>	
G4-34	Governance structure	<a href="#">Our Approach – Governance</a>	
G4-56	Organization’s values, principles, standards and norms of behaviour	<p><a href="#">Our Approach – Our Commitment to Sustainability</a></p> <p><a href="#">Our Approach – Our Purpose and Our Promises</a></p> <p><a href="#">Operating Ethically – Business Conduct – Management Approach</a></p> <p><a href="#">Sherritt 2014 Sustainability Report – Rewarding Workplace</a></p>	

ECONOMIC PERFORMANCE

GRI Indicator	Description	Location	SDG
<a href="#">Material Aspect: Economic Performance</a>			
DMA	Disclosure of Management Approach	<p><a href="#">Our Approach – Our Commitment to Sustainability</a></p> <p><a href="#">Operating Ethically – Economic Performance – Management Approach</a></p> <p><a href="#">2016 Annual Information Form – Risk Factors – Market Conditions – Page 50</a></p> <p><a href="#">2016 Annual Information Form – Description of the Business – Management of Growth – Page 67</a></p>	
G4-EC1	Direct economic value generated and distributed	<p><a href="#">About Sherritt – 2016 Key Indicators</a></p> <p><a href="#">Operating Ethically – Economic Performance</a></p> <p><a href="#">Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint</a></p> <p><a href="#">View Data Table – See page 124</a></p>	  
G4-EC2	Financial implications and other risks and opportunities for the organization’s activities due to climate change	<p><a href="#">Demonstrating Environmental Responsibility – Energy and Climate Change – Management Approach</a></p> <p><a href="#">2016 Annual Information Form – Risk Factors – Climate Change/Greenhouse Gas Emissions – Page 64</a></p>	
G4-EC4	Financial assistance received from government	<p><a href="#">Operating Ethically – Economic Performance</a></p> <p><a href="#">2016 Annual Report – Page 16</a></p> <p><a href="#">View Data Table – See page 124</a></p>	
<a href="#">Material Aspect: Market Presence</a>			
DMA	Disclosure of Management Approach	<a href="#">Engaging Stakeholders and Benefitting Communities – Community Development – Management Approach</a>	
G4-EC6	Proportion of senior management hired from the local community at significant locations of operation	<p><a href="#">Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint</a></p> <p><a href="#">View Data Table – See page 124</a></p>	  
<a href="#">Material Aspect: Indirect Economic Impacts</a>			
DMA	Disclosure of Management Approach	<a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach</a>	

## PERFORMANCE

### ECONOMIC PERFORMANCE

GRI Indicator	Description	Location	SDG
G4-EC7	Development and impact of infrastructure investments and services supported	<p>About Sherritt – Our Supply Chain</p> <p>Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint</p> <p>Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Community Investment</p> <p><a href="#">View Data Table</a> – See page 125</p>	  
G4-EC8	Significant indirect economic impacts, including the extent of impacts	<p>Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint</p>	  
SI-1	Economic benefit footprint	<p>Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint</p> <p><a href="#">View Data Table</a> – See page 125</p>	 
<b>Material Aspect: Procurement Practices</b>			
DMA	Disclosure of Management Approach	<p>Operating Ethically – Business Conduct – Performance – Anti-Corruption</p> <p>Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint</p> <p>Case Study – Engaging Stakeholders and Benefitting Communities – Working with Local Businesses at Ambatovy</p>	
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	<p>Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint</p> <p><a href="#">View Data Table</a> – See page 125</p>	  

### ENVIRONMENTAL PERFORMANCE

GRI Indicator	Description	Location	SDG
<b>Material Aspect: Energy</b>			
DMA	Disclosure of Management Approach	<p>Demonstrating Environmental Responsibility</p> <p>Demonstrating Environmental Responsibility – Energy and Climate Change – Management Approach</p>	



**PERFORMANCE**

**ENVIRONMENTAL PERFORMANCE**





GRI Indicator	Description	Location	SDG
G4-EN3	Energy consumption within the organization	Demonstrating Environmental Responsibility – Energy and Climate Change  View Data Table – See page 126	  
<i>Material Aspect: Water</i>			
DMA	Disclosure of Management Approach	Demonstrating Environmental Responsibility – Water – Management Approach	
G4-EN8	Total water withdrawal by source	Demonstrating Environmental Responsibility – Water – Performance – Water Use  View Data Table – See page 126	
G4-EN10	Percentage and total volume of water recycled and reused	Demonstrating Environmental Responsibility – Water – Performance – Water Use  View Data Table – See page 126	 
<i>Material Aspect: Biodiversity</i>			
DMA	Disclosure of Management Approach	Demonstrating Environmental Responsibility – Biodiversity and Land – Management Approach	
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas of high biodiversity value outside protected areas	Demonstrating Environmental Responsibility – Biodiversity and Land	
G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	Demonstrating Environmental Responsibility – Biodiversity and Land	
G4-EN13	Habitats protected or restored	Demonstrating Environmental Responsibility – Biodiversity and Land – Performance  Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Performance – Closed Properties  Case Study – Demonstrating Environmental Responsibility – Conserving Madagascar’s Precious Orchids  View Data Table – See page 126	

ENVIRONMENTAL PERFORMANCE


GRI Indicator	Description	Location	SDG
MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	Demonstrating Environmental Responsibility – Biodiversity and Land – Performance – Land Management  View Data Table – See page 127	 
MM2	Sites requiring biodiversity management plans	Demonstrating Environmental Responsibility – Biodiversity and Land  View Data Table – See page 127	  
<b>Material Aspect: Emissions</b>			
DMA	Disclosure of Management Approach	Demonstrating Environmental Responsibility  Demonstrating Environmental Responsibility – Energy and Climate Change – Management Approach	
G4-EN15	GHG emissions (Scope 1)	Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – GHG Emissions and Energy Consumption  View Data Table – See page 127	 
G4-EN16	GHG emissions (Scope 2)	Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – GHG Emissions and Energy Consumption  View Data Table – See page 127	 
G4-EN21	Air emissions	Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – Air Quality  View Data Table – See page 127	 
<b>Material Aspect: Effluents and Waste</b>			
DMA	Disclosure of Management Approach	Demonstrating Environmental Responsibility – Tailings Management – Management Approach	
G4-EN24	Total number and volume of significant spills	Demonstrating Environmental Responsibility – Water – Performance – Water Quality  View Data Table – See page 128	  
MM3	Total amounts of overburden, rock, tailings and sludges and their associated risks	Demonstrating Environmental Responsibility – Tailings Management – Performance  View Data Table – See page 128	  

## PERFORMANCE

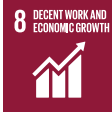



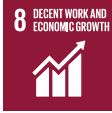


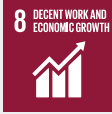

### ENVIRONMENTAL PERFORMANCE

GRI Indicator	Description	Location	SDG
<b>Material Aspect: Compliance</b>			
DMA	Disclosure of Management Approach	Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Management Approach	
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Demonstrating Environmental Responsibility – Tailings Management – Performance – Update on Remediation of Obed Containment Pond Breach  Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Management Approach  View Data Table – See page 128	
SI-3	High-severity environmental incidents	Providing a Safe and Rewarding Workplace – Public Safety – Performance – Post-Incident Community Support  View Data Table – See page 128	 
<b>Material Aspect: Environmental Grievance Mechanisms</b>			
DMA	Disclosure of Management Approach	Our Approach – Sustainability Framework – Management Systems  Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach	
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances  View Data Table – See page 128	

### SOCIAL PERFORMANCE: LABOUR PRACTICES

GRI Indicator	Description	Location	SDG
<b>Material Aspect: Labour/Management Relations</b>			
DMA	Disclosure of Management Approach	Providing a Safe and Rewarding Workplace – Employee Relations – Management Approach	
G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	Providing a Safe and Rewarding Workplace – Employee Relations – Management Approach  View Data Table – See page 129	

SOCIAL PERFORMANCE: LABOUR PRACTICES


GRI Indicator	Description	Location	SDG
MM4	Number of strikes and lock-outs exceeding one week's duration, by country	Providing a Safe and Rewarding Workplace – Labour Relations – Performance – Organized Labour, Grievances and Strike Action  View Data Table – See page 129	
Material Aspect: Occupational Health and Safety			
DMA	Disclosure of Management Approach	Providing a Safe and Rewarding Workplace – Health and Safety – Management Approach  Case Study – Providing a Safe and Rewarding Workplace – Emergency Prevention and Preparedness – Cuba's Experience	
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	Providing a Safe and Rewarding Workplace – Health and Safety – Performance – Lost Time and Recordable Incidents  View Data Table – See page 129	 
SI-4	Emergency preparedness	Providing a Safe and Rewarding Workplace – Public Safety – Performance – Emergency Response Planning and Training  Case Study – Providing a Safe and Rewarding Workplace – Emergency Prevention and Preparedness – Cuba's Experience  View Data Table – See page 130	  
Material Aspect: Diversity and Equal Opportunity			
DMA	Disclosure of Management Approach	Providing a Safe and Rewarding Workplace – Employee Relations – Management Approach	
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Workplace Diversity  View Data Table – See page 130	 
Material Aspect: Labour Practices Grievance Mechanisms			
DMA	Disclosure of Management Approach	Providing a Safe and Rewarding Workplace – Employee Relations – Management Approach	
G4-LA16	Number of grievances about labour practices filed, addressed, and resolved through formal grievance mechanisms	Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Organized Labour, Grievances and Strike Action  View Data Table – See page 130	

SOCIAL PERFORMANCE: HUMAN RIGHTS









GRI Indicator	Description	Location	SDG
<b>Material Aspect: Non-Discrimination</b>			
DMA	Disclosure of Management Approach	Providing a Safe and Rewarding Workplace – Employee Relations – Management Approach	
G4-HR3	Total number of incidents of discrimination and corrective actions taken	Operating Ethically – Human Rights View Data Table – See page 131	  
<b>Material Aspect: Freedom of Association and Collective Bargaining</b>			
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Organized Labour, Grievances and Strike Action View Data Table – See page 131	
<b>Material Aspect: Child Labour</b>			
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour	Operating Ethically – Human Rights – Management Approach Operating Ethically – Human Rights – Performance – Children’s Rights View Data Table – See page 131	 
<b>Material Aspect: Security Practices</b>			
DMA	Disclosure of Management Approach	Providing a Safe and Rewarding Workplace – Site Security – Management Approach Case Study – Providing a Safe and Rewarding Workplace – Implementing the Voluntary Principles in Madagascar	
G4-HR7	Percentage of security personnel trained in the organization’s human rights policies or procedures that are relevant to operations	Providing a Safe and Rewarding Workplace – Site Security – Management Approach View Data Table – See page 131	
<b>Material Aspect: Assessment</b>			
DMA	Disclosure of Management Approach	Operating Ethically – Human Rights – Management Approach	
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	Operating Ethically – Human Rights – Performance Providing a Safe and Rewarding Workplace – Site Security – Performance – Security and Human Rights View Data Table – See page 132	

## PERFORMANCE

### SOCIAL PERFORMANCE: HUMAN RIGHTS






GRI Indicator	Description	Location	SDG
Material Aspect: Human Rights Grievance Mechanisms			
DMA	Disclosure of Management Approach	Operating Ethically – Human Rights – Management Approach	
G4-HR12	Number of grievances about human rights impacts filed, addressed and resolved through formal grievance mechanisms	Operating Ethically – Human Rights – Performance – Human Rights Grievances <a href="#">View Data Table</a> – See page 132	

### SOCIAL PERFORMANCE: SOCIETY

GRI Indicator	Description	Location	SDG
Material Aspect: Local Communities			
DMA	Disclosure of Management Approach	Engaging Stakeholders and Benefitting Communities – Community Development – Management Approach	
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Community Investment <a href="#">View Data Table</a> – See page 132	 
SI-5	Number of community meetings	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement <a href="#">View Data Table</a> – See page 133	 
Material Aspect: Artisanal and Small-Scale Mining			
MM8	Number and percentage of company operating sites where artisanal and small-scale mining takes place on, or adjacent to, the site; the associated risks and the action taken to manage and mitigate these risks	Operating Ethically – Human Rights <a href="#">View Data Table</a> – See page 133	  
Material Aspect: Resettlement			
MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	Operating Ethically – Human Rights <a href="#">View Data Table</a> – See page 133	
Material Aspect: Closure Planning			
DMA	Disclosure of Management Approach	Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Management Approach	



SOCIAL PERFORMANCE: SOCIETY

GRI Indicator	Description	Location	SDG
MM10	Number and percentage of operations with closure plans	Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Performance – Current Operations  View Data Table – See page 133	
Material Aspect: Anti-Corruption			
DMA	Disclosure of Management Approach	Operating Ethically – Business Conduct – Management Approach	
G4-SO4	Communication and training on anti-corruption policies and procedures	Operating Ethically – Business Conduct – Performance – Anti-Corruption  Case Study – Operating Ethically – Rolling Out Anti-Corruption Training  View Data Table – See page 134	 
Material Aspect: Grievance Mechanisms for Impacts on Society			
DMA	Disclosure of Management Approach	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach – Corporate Standards to Support Stakeholder Engagement  Operating Ethically – Human Rights – Management Approach	
G4-SO11	Number of grievances about impacts on society filed, addressed and resolved through formal grievance mechanisms	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances  View Data Table – See page 134	 

## UNITED NATIONS GLOBAL COMPACT (UNGC)

Please see [www.unglobalcompact.org](http://www.unglobalcompact.org) for more information on the UNGC.

UN Global Compact Principles Reference	Location/Description
<b>PRINCIPLE 1: HUMAN RIGHTS</b>	G4-11
Businesses should support and respect the protection of internationally proclaimed human rights.	G4-LA6
	G4-HR3
	G4-HR7
	G4-HR9
	G4-HR12
	G4-SO1
	MM9
	Operating Ethically – Human Rights – Performance
	Operating Ethically – Human Rights – Performance – Human Rights Grievances
	Providing a Safe and Rewarding Workplace – Site Security – Management Approach
	Providing a Safe and Rewarding Workplace – Health and Safety – Performance – Lost Time and Recordable Incidents
	Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Organized Labour, Grievances and Strike Action
	Providing a Safe and Rewarding Workplace – Site Security – Performance – Security and Human Rights
	Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Community Investment
Case Study – Operating Ethically – Supporting Children and Youth in Madagascar	
Case Study – Engaging Stakeholders and Benefitting Communities – Joint Fact Finding at Ambatovy to Address Community Concerns	
Case Study – Engaging Stakeholders and Benefitting Communities – Community Investment in Cuba	
To facilitate construction, Ambatovy had to resettle villagers living in the vicinity of the Tailings and Plant Site to appropriate parcels of land. Between 2007 and 2008, Ambatovy established two resettlement villages: Vohitrabato and Marovato. There was no additional resettlement in 2016; however Ambatovy is in the planning and consultation stage of resettlement of two villages in the mine lease area, which is scheduled to occur in the future. Resettlement was done in strict adherence to the International Finance Corporation (IFC) Performance standards, and guidelines set by Madagascar’s national regulatory body.	

UN Global Compact Principles Reference	Location/Description
<b>PRINCIPLE 2: HUMAN RIGHTS</b>	G4-HR3
Businesses should make sure that they are not complicit in human rights abuses.	G4-HR7
	G4-HR9
	G4-HR12
	Providing a Safe and Rewarding Workplace – Site Security – Management Approach
	Providing a Safe and Rewarding Workplace – Site Security – Performance – Security and Human Rights
	Operating Ethically – Human Rights – Performance
	Operating Ethically – Human Rights – Performance – Human Rights Grievances
<b>PRINCIPLE 3: LABOUR</b>	G4-11
Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	G4-LA4
	MM4
	Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Organized Labour, Grievances and Strike Action
<b>PRINCIPLE 4: LABOUR</b>	Operating Ethically – Business Conduct – Management Approach
Businesses should uphold the elimination of all forms of forced and compulsory labour.	Operating Ethically – Human Rights – Management Approach
	Providing a Safe and Rewarding Workplace – Employee Relations – Management Approach
	Sherritt 2014 Sustainability Report – Ethics – Management Approach
	Sherritt 2014 Sustainability Report – Workplace – Training and Development – Metals
<b>PRINCIPLE 5: LABOUR</b>	Operating Ethically – Human Rights – Management Approach
Businesses should uphold the effective abolition of child labour.	Operating Ethically – Human Rights – Performance – Children’s Rights
	Working to Address Child Exploitation in Mining

UN Global Compact Principles Reference	Location/Description
<b>PRINCIPLE 6: LABOUR</b>	G4-10
Businesses should uphold the elimination of discrimination in respect of employment and occupation.	G4-EC6
	G4-LA12
	G4-LA16
	Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Workplace Diversity
	Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Organized Labour, Grievances and Strike Action
	Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint
	Senior Management: Manager (of a group), Director, Controller, Senior Counsel, VP, SVP, CFO, COO, President or CEO
	Local: At Sherritt, we allow each division to define who should be considered “local” in its own way, as is contextually appropriate. In Cuba, a local is a Cuban national, with special consideration for communities adjacent to our operations; in Fort Saskatchewan, a local is from the province of Alberta, with special consideration for workers who live in the Edmonton Census Metropolitan Area; and in Madagascar, a local is a Malagasy national, with special consideration for suppliers and workers from the communities surrounding our operations.
	Significant location of operation: Sherritt considers Ambatovy, Moa, Fort Saskatchewan, and Oil & Gas and Power (OGP) as “significant locations of operations” for sustainability reporting. Ambatovy includes several integrated sites in Madagascar that make up its operations; and OGP includes a collection of facilities in Cuba located in close proximity to each other.

UN Global Compact Principles Reference	Location/Description
<b>PRINCIPLE 7: ENVIRONMENT</b>	G4-14
Businesses should support a precautionary approach to environmental challenges.	G4-EC2
	G4-EN8
	MM2
	G4-EN15
	G4-EN21
	MM8
	MM10
	Providing a Safe and Rewarding Workplace – Public Safety – Management Approach
	Demonstrating Environmental Responsibility – Energy and Climate Change – Management Approach
	Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – Air Quality
	Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – GHG Emissions and Energy Consumption
	Demonstrating Environmental Responsibility – Water – Performance – Water Use
	Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Performance – Current Operations
	2016 Annual Information Form – Page 46
	2016 Annual Information Form – Risk Factors – Climate Change/Greenhouse Gas Emissions – Page 64
	<p>Small-scale sites of artisanal gold mining have been observed along the Pipeline at Ambatovy. This activity presents certain social risks and threatens the integrity of our pipeline; however, to be clear, the size and scale of this activity has been quite small and the risk is relatively low. This activity is not at all comparable with the larger-scale artisanal mining activities happening near gold mines in other parts of Africa and elsewhere. Ambatovy is working with local authorities to sensitize communities to the potential risks and dangers of these activities and to identify alternatives to enhance income and revenue. Authorities are willing to collaborate with us to address this matter. In 2015, two sites were completely closed and only intermittent exploitation was observed at the other.</p>

UN Global Compact Principles Reference	Location/Description
<b>PRINCIPLE 8: ENVIRONMENT</b>	G4-EN8
Businesses should undertake initiatives to promote greater environmental responsibility.	G4-EN13
	MM1
	MM2
	G4-EN15
	G4-EN21
	G4-EN24
	G4-EN29
	G4-EN34
	Demonstrating Environmental Responsibility – Tailings Management – Performance – Update on Remediation of Obed Containment Pond Breach
	Demonstrating Environmental Responsibility – Biodiversity and Land – Performance
	Demonstrating Environmental Responsibility – Biodiversity and Land – Performance – Land Management
	Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – GHG Emissions and Energy Consumption
	Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – Air Quality
	Demonstrating Environmental Responsibility – Water – Performance – Water Quality
	Demonstrating Environmental Responsibility – Water – Performance – Water Use
	Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Management Approach
	Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Performance – Closed Properties
	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances
	Case Study – Demonstrating Environmental Responsibility – Conserving Madagascar’s Precious Orchids
	Case Study – Demonstrating Environmental Responsibility – Rehabilitation and Reclamation in Moa, Cuba
	Case Study – Demonstrating Environmental Responsibility – Protecting the Smallest Inhabitants Where We Operate

UN Global Compact Principles Reference	Location/Description
<p><b>PRINCIPLE 9: ENVIRONMENT</b></p> <p>Businesses should encourage the development and diffusion of environmentally friendly technologies.</p>	<p><a href="#">Case Study – Demonstrating Environmental Responsibility – Clean Development Mechanism Credits in Cuba</a></p>
<p><b>PRINCIPLE 10: ANTI-CORRUPTION</b></p> <p>Businesses should work against corruption in all its forms, including extortion and bribery.</p>	<p><a href="#">G4-56</a></p> <p><a href="#">G4-SO4</a></p> <p><a href="#">Our Approach – Our Purpose and Our Promises</a></p> <p><a href="#">Operating Ethically – Business Conduct – Management Approach</a></p> <p><a href="#">Operating Ethically – Business Conduct – Performance – Anti-Corruption</a></p> <p><a href="#">2014 Sustainability Report</a></p>



## THE ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)

Please see [www.oecd.org](http://www.oecd.org) for more information on the OECD.

OECD	Location
OECD IV. Human Rights	<p>DMA – Environmental Grievance Mechanisms</p> <p>DMA – Non-Discrimination</p> <p>G4-HR3</p> <p>DMA – Assessment</p> <p>DMA – Local Communities</p> <p>DMA – Grievance Mechanisms for Impacts on Society</p> <p>Our Approach – Sustainability Framework – Management Systems</p> <p>Providing a Safe and Rewarding Workplace – Employee Relations – Management Approach</p> <p>Operating Ethically – Human Rights – Management Approach</p> <p>Engaging Stakeholders and Benefitting Communities – Community Development – Management Approach</p> <p>Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach</p> <p>Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach – Corporate Standards to Support Stakeholder Engagement</p>

OECD	Location
OECD V. Employment and Industrial Relations	G4-11
	DMA – Economic Performance
	G4-EC3
	G4-EC4
	DMA – Labour/Management Relations
	G4-LA4
	DMA – Occupational Health and Safety
	G4-LA6
	G4-LA12
	G4-LA16
	DMA – Security Practices
	DMA – Human Rights Grievance Mechanisms
	DMA – Local Communities
	DMA – Grievance Mechanisms for Impacts on Society
	Our Approach – Our Commitment to Sustainability
	Providing a Safe and Rewarding Workplace – Health and Safety – Performance – Lost Time and Recordable Incidents
	Providing a Safe and Rewarding Workplace – Employee Relations – Management Approach
	Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Workplace Diversity
	Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Organized Labour, Grievances and Strike Action
	Providing a Safe and Rewarding Workplace – Health and Safety – Management Approach
	Providing a Safe and Rewarding Workplace – Site Security – Management Approach
	Operating Ethically – Economic Performance – Management Approach
	Operating Ethically – Human Rights – Management Approach
	Engaging Stakeholders and Benefitting Communities – Community Development – Management Approach
	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach – Corporate Standards to Support Stakeholder Engagement
	Case Study – Providing a Safe and Rewarding Workplace – Emergency Prevention and Preparedness – Cuba’s Experience
Case Study – Providing a Safe and Rewarding Workplace – Implementing the Voluntary Principles in Madagascar	
2016 Annual Information Form – Significant Customers – Page 61	
2016 Annual Information Form – Risk Factors – Market Conditions – Page 50	
2016 Annual Information Form – Description of the Business – Management of Growth – Page 67	

OECD	Location
OECD VI. Environment	<p>G4-EC2</p> <p>DMA – Energy</p> <p>DMA – Water</p> <p>G4-EN8</p> <p>DMA – Biodiversity</p> <p>G4-EN13</p> <p>DMA – Emissions</p> <p>G4-EN15</p> <p>G4-EN21</p> <p>G4-EN29</p> <p>DMA – Environmental Grievance Mechanisms</p> <p>G4-EN34</p> <p>Our Approach – Sustainability Framework – Management Systems</p> <p>Demonstrating Environmental Responsibility</p> <p>Demonstrating Environmental Responsibility – Tailings Management – Performance – Update on Remediation of Obed Containment Pond Breach</p> <p>Demonstrating Environmental Responsibility – Biodiversity and Land – Management Approach</p> <p>Demonstrating Environmental Responsibility – Biodiversity and Land – Performance</p> <p>Demonstrating Environmental Responsibility – Water – Management Approach</p> <p>Demonstrating Environmental Responsibility – Water – Performance – Water Use</p> <p>Demonstrating Environmental Responsibility – Energy and Climate Change – Management Approach</p> <p>Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – GHG Emissions and Energy Consumption</p> <p>Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – Air Quality</p> <p>Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Management Approach</p> <p>Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Performance – Closed Properties</p> <p>Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach</p> <p>Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances</p> <p>Case Study – Demonstrating Environmental Responsibility – Conserving Madagascar’s Precious Orchids</p> <p>Case Study – Demonstrating Environmental Responsibility – Rehabilitation and Reclamation in Moa, Cuba</p> <p>Case Study – Demonstrating Environmental Responsibility – Protecting the Smallest Inhabitants Where We Operate</p> <p>2016 Annual Information Form – Risk Factors – Climate Change/Greenhouse Gas Emissions – Page 64</p>

<b>OECD</b>	<b>Location</b>
OECD VII. Combatting Bribery, Bribe Solicitation and Extortion	<a href="#">G4-EC2</a>
	<a href="#">G4-SO1</a>
	<a href="#">G4-SO4</a>
	<a href="#">DMA – Grievance Mechanisms for Impacts on Society</a>
	<a href="#">G4-SO11</a>
	<a href="#">Operating Ethically – Business Conduct – Performance – Anti-Corruption</a>
	<a href="#">Operating Ethically – Human Rights – Management Approach</a>
	<a href="#">Demonstrating Environmental Responsibility – Energy and Climate Change – Management Approach</a>
	<a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach – Corporate Standards to Support Stakeholder Engagement</a>
	<a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances</a>
	<a href="#">Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Community Investment</a>
	<a href="#">Case Study – Operating Ethically – Rolling Out Anti-Corruption Training</a>
	<a href="#">Case Study – Operating Ethically – Supporting Children and Youth in Madagascar</a>
	<a href="#">Case Study – Engaging Stakeholders and Benefitting Communities – Joint Fact Finding at Ambatovy to Address Community Concerns</a>
<a href="#">Case Study – Engaging Stakeholders and Benefitting Communities – Community Investment in Cuba</a>	
	<a href="#">2016 Annual Information Form – Risk Factors – Climate Change/Greenhouse Gas Emissions – Page 64</a>
OECD VIII. Consumer Interest	<a href="#">2016 Annual Report</a>
	<a href="#">2016 Annual Information Form</a>
OECD IX. Science and Technology	<a href="#">About Sherritt – Divisions/Products</a>
	<a href="#">Demonstrating Environmental Responsibility – Biodiversity and Land – Management Approach</a>
	<a href="#">2016 Annual Information Form – Section 3.4</a>

OECD	Location
OECD X. Competition	<p><a href="#">DMA – Indirect Economic Impacts</a></p> <p><a href="#">DMA – Economic Performance</a></p> <p><a href="#">DMA – Market Presence</a></p> <p><a href="#">DMA – Procurement Practices</a></p> <p><a href="#">Our Approach – Our Commitment to Sustainability</a></p> <p><a href="#">Operating Ethically – Business Conduct – Performance – Anti-Corruption</a></p> <p><a href="#">Operating Ethically – Economic Performance – Management Approach</a></p> <p><a href="#">Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach</a></p> <p><a href="#">Engaging Stakeholders and Benefitting Communities – Community Development – Management Approach</a></p> <p><a href="#">Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint</a></p> <p><a href="#">Case Study – Engaging Stakeholders and Benefitting Communities – Working with Local Businesses at Ambatovy</a></p> <p><a href="#">2016 Annual Information Form – Risk Factors – Market Conditions – Page 50</a></p> <p><a href="#">2016 Annual Information Form – Description of the Business – Management of Growth – Page 67</a></p>
OECD XI. Taxation	<p><a href="#">G4-EC1</a></p> <p><a href="#">DMA – Economic Performance</a></p> <p><a href="#">About Sherritt – 2016 Key Indicators</a></p> <p><a href="#">Our Approach – Our Commitment to Sustainability</a></p> <p><a href="#">Operating Ethically – Economic Performance – Management Approach</a></p> <p><a href="#">Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint</a></p> <p><a href="#">2016 Annual Information Form – Risk Factors – Market Conditions – Page 50</a></p> <p><a href="#">2016 Annual Information Form – Description of the Business – Management of Growth – Page 67</a></p>

GRI INDEX DATA TABLES

G4-10 EMPLOYEE/WORKFORCE DETAILS

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate
Full-time non-supervisory (total)	2,597	525	1,822	572	27
Men	2,256	439	1,692	492	12
Women	341	86	130	80	15
Part-time non-supervisory (total)	-	15	-	2	2
Men	-	9	-	1	1
Women	-	6	-	1	1
Supervisors (total)	511	84	110	75	23
Men	454	69	103	66	15
Women	57	15	7	9	8
Contractors (total)	-	-	1	6	4
Men	-	-	1	6	2
Women	-	-	-	-	2

G4-11 PERCENTAGE OF TOTAL EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENTS

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate
Percentage of total employees covered by collective bargaining agreements	A process is underway to set collective agreements with elected employee representatives.	47%	In Cuba, all organized labour considerations are mandated by the Cuban state and many systems and tools common in other jurisdictions are not employed there. There were no grievances reported by expatriate or Canada-based employees.		Not applicable

**G4-EC1 DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED\***

(C\$ millions)

Indicator Components	Ambatovy	Moa JV and Fort Site	Oil & Gas and Power	Corporate
Revenues	264.80	339.30	167.20	48.90
Costs				
Operating costs (cost of sales), excludes depreciation, employee costs and community investments disclosed below	215.80	226.52	66.89	31.41
Employee wages and benefits	43.20	89.50	31.00	46.40
Spending on capital	33.10	32.90	26.90	0.10
Payments to governments	13.36	18.10	11.54	-
Community investment	2.40	0.18	0.31	0.19
Total economic value distributed	307.86	367.20	136.64	78.10
Economic value retained or invested (pre-calculated as “Direct economic value generated” less “Economic value distributed”)	(43.06)	(27.90)	30.56	(29.20)

\* These figures reflect Sherritt’s ownership share in 2016, and reporting for the Moa Joint Venture and Fort Saskatchewan facility are combined to align with other financial disclosures.

Note: There are some discrepancies between Sherritt’s economic indicators and the [ESTMA](#) filing, due to differences in reporting scope and definitions.

**G4-EC4 FINANCIAL ASSISTANCE RECEIVED FROM GOVERNMENT**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Total monetary value of financial assistance received by the organization from governments, by country*	-	\$23,103	-	-

\* These figures are reported on a 100% ownership basis.

**G4-EC6 PROPORTION OF SENIOR MANAGEMENT HIRED FROM THE LOCAL COMMUNITY AT SIGNIFICANT LOCATIONS OF OPERATION**

Indicator Components	Ambatovy	Fort Site	Moa Site	Oil & Gas and Power	Corporate
Report the percentage of senior management* at significant locations of operation that are hired from the local community	21%	97%	98%	54%	Not applicable

\* Definition: Manager (of a group), Director, Controller, Senior Counsel, VP, SVP, CFO, COO, President or CEO.



**G4-EC7 DEVELOPMENT AND IMPACT OF INFRASTRUCTURE INVESTMENTS AND SERVICES SUPPORTED**

Indicator Components	Ambatovy	Fort Saskatchewan	Cuba
Extent of development of significant infrastructure investments and services supported	In Madagascar, Ambatovy has invested heavily in industrial and public infrastructure, in order to support its 100% value-added operations in-country. This investment includes: upgrading the Port of Toamasina and 100 km of public roads as well as developing several new projects, such as a railway line to move commodities between the Port and Ambatovy's processing plant, an electricity-generating station for the processing plant, a water treatment facility, a vocational training centre, a food distribution centre and market facilities, medical clinics, primary schools and resettlement villages.	There were no significant investments in infrastructure in 2016 in Fort Saskatchewan.	In Cuba, Sherritt has invested in public infrastructure, including, among other things, street lighting; sanitation and construction equipment; roads; transportation services; and equipment for hospitals, schools and retirement homes.

**SI-1 ECONOMIC BENEFIT FOOTPRINT**

(C\$ millions)

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Total Sherritt
Payments to governments	33.41	7.91	20.30	19.39	81.01
Local/national procurement	279.55	85.86	90.40	38.55	494.35
Local salaries, wages and benefits	34.32	107.20	55.00	13.82	210.35
Community investment	6.00	17.46	329.15	311.19	6.65
Economic benefit footprint*	353.27	200.99	166.03	72.08	792.36

\* This calculation includes the sum of the value of spending on local suppliers, local salaries and wages, payments to government, and community investment. All reported on a 100% ownership basis.

**G4-EC9 PROPORTION OF SPENDING ON LOCAL SUPPLIERS AT SIGNIFICANT LOCATIONS OF OPERATION**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate
Percentage of the procurement budget used for significant locations of operation spent on suppliers local to that operation	40%	85%	38%	53%	Not applicable

**G4-EN3 ENERGY CONSUMPTION WITHIN THE ORGANIZATION**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Total fossil fuel consumption	1,585,441 GJ	4,469 TJ of natural gas and 11 TJ of gasoline/diesel/propane	7,046,245 GJ	40,769,484 GJ
Total electricity consumption	1,966,342 GJ	591 TJ	536,228 GJ	34,713 GJ
Total waste fuel consumption	-	218 TJ	-	Not applicable
Electricity consumption	1,966,342 GJ	591 TJ	-	Oil and Gas – 9,642 MWh Energas – 235,440.1 MWh
Heating consumption	-	-	-	Not applicable
Cooling consumption	-	Not applicable	-	Not applicable
Steam consumption	5,294,903 t	-	-	Not applicable
Electricity sold	-	-	-	2,683,080 MWh
Heating sold	-	-	-	Not applicable
Cooling sold	-	Not applicable	-	Not applicable
Steam sold	-	86 TJ	-	Not applicable

**G4-EN8 TOTAL WATER WITHDRAWAL BY SOURCE**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Total water withdrawal by source (m <sup>3</sup> )	27,783,673	2,500,000	14,150,000	234,346
Surface water, including water from wetlands, rivers, lakes, and oceans (m <sup>3</sup> )	27,251,949	2,400,000	14,150,000	23,285
Ground water (m <sup>3</sup> )	531,724	-	-	39,600
Rainwater collected directly and stored by the organization (m <sup>3</sup> )	-	-	-	-
Waste water from another organization (m <sup>3</sup> )	-	-	-	-
Municipal water supplies or other water utilities (m <sup>3</sup> )	-	100,000	-	171,461

**G4-EN10 PERCENTAGE AND TOTAL VOLUME OF WATER RECYCLED AND REUSED**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Total volume of water recycled and reused (m <sup>3</sup> )	61,425	2,100	4,182,000	Not applicable
Percentage of total water recycled and reused	0.22%	0.08%	30.00%	Not applicable

**G4-EN13 HABITATS PROTECTED OR RESTORED**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Total size of protected areas (ha)	20,358	Not applicable	-	Not applicable

**MM1 AMOUNT OF LAND (OWNED OR LEASED, AND MANAGED FOR PRODUCTION ACTIVITIES OR EXTRACTIVE USE) DISTURBED OR REHABILITATED**

Indicator Components	Units	Ambatovy*	Fort Saskatchewan	Moa**	Oil & Gas and Power	Total Sherritt
Total amount of land disturbed and not yet rehabilitated	ha	2,088	100	166	6	2,360
Total amount of land newly disturbed within 2016	ha	82	–	51	2	135
Total amount of land newly rehabilitated within 2016 to the agreed end use	ha	10	–	30	Not applicable	40
Total land rehabilitated since the start of the project – estimate	ha	105	Not applicable	640	Not applicable	745

\* Please note the data reported for Ambatovy in 2015 accounted for all planned land disturbance over the entire life of mine, rather than what had been disturbed up to the reporting year; this error has been corrected in 2016 reporting, which accounts for all current land disturbance at the mine, plant and auxiliary facilities.

\*\* Data reported for Moa represents land disturbance that occurred from 1994 onwards – or the years that the Moa Joint Venture between Sherritt and the Cuban state has been in place. The data do not reflect any mining activity at the site that pre-dates the joint venture.

**MM2 SITES REQUIRING BIODIVERSITY MANAGEMENT PLANS**

Indicator Components	Units	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Total number of operations requiring biodiversity management plans	#	1	Not applicable	1	Not applicable
Number (and percentage) of total operations that have been assessed under the criteria as in need of a BMP	#	1	Not applicable	1	Not applicable
	%	100	Not applicable	100	Not applicable
Of the number of operations in need of a BMP, the number (and percentage) that have a BMP in place and operational	#	1	Not applicable	1	Not applicable
	%	100	Not applicable	100	Not applicable

**G4-EN15 DIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 1)**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate	Total Sherritt
Scope 1 emissions (kt CO <sub>2</sub> e)	1,884	355	622	1,583,042	–	1,585,904

**G4-EN16 DIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 2)**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate	Total Sherritt
Scope 2 emissions (kt CO <sub>2</sub> e)	–	130	50	–	–	180

**G4-EN21 NO<sub>x</sub>, SO<sub>x</sub> AND OTHER SIGNIFICANT AIR EMISSIONS**

Indicator Components	Ambatovy*	Fort Saskatchewan	Moa	Oil & Gas and Power
Air emissions – NO <sub>x</sub>	7.1 µg/m <sup>3</sup>	1,678 tonnes	1,564 tonnes	6,687 tonnes
Air emissions – SO <sub>x</sub>	18.3 µg/m <sup>3</sup>	57 tonnes	13,073 tonnes	11,601 tonnes
Air emissions – TPM	28.2 µg/m <sup>3</sup>	77 tonnes	Not calculated	Not applicable

\* In Madagascar, our current monitoring system records air emissions as a concentration rather than a total mass (which is what we monitor at our other operations), and we base our ambient air quality observations at ground level. So we are unable to normalize these data across Sherritt.

**G4-EN24 TOTAL NUMBER AND VOLUME OF SIGNIFICANT SPILLS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Total Sherritt
Total number of recorded significant spills (#)	-	-	1	-	1
Total volume of recorded significant spills (m <sup>3</sup> )	-	-	2	-	2

**MM3 TOTAL AMOUNTS OF OVERBURDEN, ROCK, TAILINGS AND SLUDGES AND THEIR ASSOCIATED RISKS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Total Sherritt
Total waste rock, liquid tailings and sludge, and overburden (2015-specific) (tonnes)	25,676,361	Not applicable	12,931,945	Not applicable	38,608,306
Total amounts of waste rock (tonnes)	-	Not applicable	26,595	Not applicable	26,595
Total amounts of liquid tailings and sludge (tonnes)	23,535,361	Not applicable	10,398,200	Not applicable	33,933,561
Total amounts of overburden (tonnes)	2,141,000	Not applicable	2,507,150	Not applicable	4,648,150

**G4-EN29 MONETARY VALUE OF SIGNIFICANT FINES AND TOTAL NUMBER OF NON-MONETARY SANCTIONS FOR NON-COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Report significant fines and non-monetary sanctions in terms of:				
- Total monetary value of significant fines	-	-	-	-
- Total number of non-monetary sanctions	-	-	-	-
- Cases brought through dispute resolution mechanisms	-	-	-	-

**SI-3 HIGH-SEVERITY ENVIRONMENTAL INCIDENTS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate
Number of high-severity environmental incidents	-	-	-	-	-

**G4-EN34 NUMBER OF GRIEVANCES ABOUT ENVIRONMENTAL IMPACTS FILED, ADDRESSED AND RESOLVED THROUGH FORMAL GRIEVANCE MECHANISMS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Total number of grievances about environmental impacts filed through formal grievance mechanisms during the reporting period	16	-	-	-
Total number of grievances about environmental impacts filed through formal grievance mechanisms during the reporting period – addressed	16	-	-	-
Total number of grievances about environmental impacts filed through formal grievance mechanisms during the reporting period – resolved	16	-	-	-
Total number of grievances about environmental impacts filed prior to the reporting period that were resolved during the reporting period	-	-	-	-

**G4-LA4 MINIMUM NOTICE PERIODS REGARDING OPERATIONAL CHANGES, INCLUDING WHETHER THESE ARE SPECIFIED IN COLLECTIVE AGREEMENTS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Minimum number of weeks' notice typically provided to employees and their elected representatives prior to the implementation of significant operational changes that could substantially affect them	20 days (the minimum legal requirement for the Workers' Council to respond)	2 weeks (not specified in collective agreement)	2 months (standard requirement of state-run employment agency) and additional guidance provided by Cuba's Ministry of Labour and Social Security	2 months (standard requirement of state-run employment agency) and additional guidance provided by Cuba's Ministry of Labour and Social Security

**MM4 NUMBER OF STRIKES AND LOCK-OUTS EXCEEDING ONE WEEK'S DURATION, BY COUNTRY**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate
Total number of strikes and lock-outs that exceeded one week's duration during the reporting period, by country	-	-	-	-	-

**G4-LA6 TYPE OF INJURY AND RATES OF INJURY, OCCUPATIONAL DISEASES, LOST DAYS, AND ABSENTEEISM, AND TOTAL NUMBER OF WORK-RELATED FATALITIES, BY REGION AND BY GENDER**

Indicator Components	Ambatovy	Fort Site	Moa Site	Oil & Gas and Power (O&G)	(Power)	Corporate	
Total recordable injury (TRI) index							
Employees (including supervised workers)	Data only reported as a total (employees + contractors)		0.27	0.54	0.27	-	-
Contractors	Data only reported as a total (employees + contractors)		-	0.15	-	-	-
TOTAL*	0.20	0.25	0.45	0.21	-	-	
Lost time injury (LTI) index							
Employees (including supervised workers)	Data only reported as total (employees + contractors)		-	0.54	0.27	-	-
Contractors	Data only reported as total (employees + contractors)		-	0.15	-	-	-
TOTAL	0.01	-	0.45	0.21	-	-	
Absentee rate (AR)**							
Employees (including supervised workers)***	3.90%	1.73%	Not applicable	0.40%	0.40%	0.26%	
Work-related fatalities							
Employees (including supervised workers)	-	-	4	-	-	-	
Contractors	-	-	-	-	-	-	
TOTAL	-	-	4	-	-	-	

\* We currently do not track these data by gender.

\*\* These percentages are calculated by dividing the number of days missed per employee by 260. (A typical employee works an average of 260 days per year.) Sherritt does not track the absenteeism rate for contractors.

\*\*\* This total does not include Ambatovy expatriates, Fort Saskatchewan salaried workers, Moa workers or OGP Cuban workers. These groups will be included in future reporting.

**SI-4 EMERGENCY PREPAREDNESS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate
Percentage of locations with crisis/emergency preparedness and response plans	Y	Y	Y	Y	Y
Percentage of sites with crisis communication plans	Y	Y	Y	N	Y

**G4-LA12 COMPOSITION OF GOVERNANCE BODIES AND BREAKDOWN OF EMPLOYEES PER EMPLOYEE CATEGORY**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate
Percentage of full-time, non-supervisory					
Male	87%	84%	93%	86%	44%
Female	13%	16%	7%	14%	56%
Percentage of part-time, non-supervisory					
Male	-	60%	-	50%	50%
Female	-	40%	-	50%	50%
Percentage of supervisory					
Male	89%	82%	94%	88%	65%
Female	11%	18%	6%	12%	35%
Percentage of contractors					
Male	-	-	100%	100%	50%
Female	-	-	-	-	50%

**G4-LA16 NUMBER OF GRIEVANCES ABOUT LABOUR PRACTICES FILED, ADDRESSED AND RESOLVED THROUGH FORMAL GRIEVANCE MECHANISMS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Total Sherritt
Total number of grievances about labour practices filed through formal grievance mechanisms during the reporting period	7	18			25
Of the identified grievances, report how many were addressed during the reporting period	7	18			25
Of the identified grievances, report how many were resolved during the reporting period	-	4			4
Total number of grievances about labour practices filed prior to the reporting period that were resolved during the reporting period	7	4			11

**G4-HR3 TOTAL NUMBER OF INCIDENTS OF DISCRIMINATION AND CORRECTIVE ACTIONS TAKEN**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa*	Oil & Gas and Power*
Number of incidents of discrimination on grounds of race, colour, sex, religion, political opinion, national extraction, or social origin as defined by the ILO, or other	-	-	-	-

\* Incidents of discrimination in Cuba are handled by the state employment agency that provides Sherritt’s businesses and joint ventures on the island-nation with workers. The employment agency will require the involvement of Sherritt and/or its joint venture partners in discrimination cases, as appropriate. Such involvement has occurred in previous years.

**G4-HR4 OPERATIONS AND SUPPLIERS IDENTIFIED IN WHICH THE RIGHT TO EXERCISE FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING MAY BE VIOLATED OR AT SIGNIFICANT RISK, AND MEASURES TAKEN TO SUPPORT THESE RIGHTS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Measures taken by the organization in the reporting period intended to support rights to exercise freedom of association and collective bargaining	The vendor audit questionnaire includes verification of the respect of Malagasy Labour Code to have worker delegates for those vendors with more than 11 employees.	Not applicable	Not applicable	-

**G4-HR5 OPERATIONS AND SUPPLIERS IDENTIFIED AS HAVING SIGNIFICANT RISK FOR INCIDENTS OF CHILD LABOUR, AND MEASURES TAKEN TO CONTRIBUTE TO THE EFFECTIVE ABOLITION OF CHILD LABOUR**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Measures taken by the organization in the reporting period intended to contribute to the effective abolition of child labour	This is included in any contract clause to be signed off by any new contractor prior to start of work, and also included in the vendor audit questionnaire as a mandatory verification. Any vendor who violates this clause will be terminated immediately.	-	Not applicable	-

**G4-HR7 PERCENTAGE OF SECURITY PERSONNEL TRAINED IN THE ORGANIZATION’S HUMAN RIGHTS POLICIES OR PROCEDURES THAT ARE RELEVANT TO OPERATIONS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Percentage of security personnel who have received formal training in the organization’s human rights policies or specific procedures and their application to security	75%: Full-time 90%: Private security service providers (contractors) 100%: Government security forces	100%	Not applicable	Not applicable
Whether training requirements also apply to third-party organizations providing security personnel	-	Yes	Not applicable	Not applicable



**G4-HR9 TOTAL NUMBER AND PERCENTAGE OF OPERATIONS THAT HAVE BEEN SUBJECT TO HUMAN RIGHTS REVIEWS OR IMPACT ASSESSMENTS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Total number of operations that have been subject to human rights reviews or human rights impact assessments in country	1	1	1	1
Percentage of operations that have been subject to human rights reviews or human rights impact assessments in country	100%	100%	100%	100%

**G4-HR12 NUMBER OF GRIEVANCES ABOUT HUMAN RIGHTS IMPACTS FILED, ADDRESSED AND RESOLVED THROUGH FORMAL GRIEVANCE MECHANISMS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Total number of grievances about human rights impacts filed through formal grievance mechanisms during the reporting period	-	-	-	-
Number of grievances about human rights impacts filed through formal grievance mechanisms during the reporting period – addressed	-	-	-	-
Number of grievances about human rights impacts filed through formal grievance mechanisms during the reporting period – resolved	-	-	-	-
Total number of grievances about human rights impacts filed prior to the reporting period that were resolved during the reporting period	-	-	-	-

**G4-SO1 PERCENTAGE OF OPERATIONS WITH IMPLEMENTED LOCAL COMMUNITY ENGAGEMENT, IMPACT ASSESSMENTS, AND DEVELOPMENT PROGRAMS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Percentage of operations with implemented local community engagement, impact assessments, and development programs	100%	100%	100%	100%
Social impact assessments, including gender impact assessments, based on participatory processes	100%	-	-	Local community development programs based on communities' needs
Environmental impact assessments and ongoing monitoring	100%	-	100%	Not applicable
Public disclosure of results of environmental and social impact assessments	100%	-	-	Not applicable
Local community development programs based on local communities' needs	100%	100%	100%	-
Stakeholder engagement plans based on stakeholder mapping	100%	-	-	100%
Broad based local community consultation committees and processes that include vulnerable groups	100%	-	-	Not applicable
Works councils, occupational health and safety committees and other employee representation bodies to deal with impacts	100%	100%	-	Not applicable
Formal local community grievance processes	100%	-	-	Not applicable
Implemented local community engagement impact assessments and development programs	100%	-	-	Not applicable

**SI-5 NUMBER OF COMMUNITY MEETINGS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate
Number of community meetings	690	47	7	14	Not applicable

**MM8 NUMBER AND PERCENTAGE OF COMPANY OPERATING SITES WHERE ARTISANAL AND SMALL-SCALE MINING TAKES PLACE ON, OR ADJACENT TO, THE SITE; THE ASSOCIATED RISKS AND THE ACTION TAKEN TO MANAGE AND MITIGATE THESE RISKS**

Indicator Components	Ambatovy
Where ASM takes place on or adjacent to company sites, or presents risks to the company’s operations	Small-scale sites of artisanal gold mining have been observed along the Pipeline at Ambatovy. This activity presents certain social risks and threatens the integrity of our pipeline; however, to be clear, the size and scale of this activity has been quite small and the risk is relatively low. This activity is not at all comparable with the larger-scale artisanal mining activities happening near gold mines in other parts of Africa and elsewhere. Ambatovy is working with local authorities to sensitize communities to the potential risks and dangers of these activities and to identify alternatives to enhance income and revenue. Authorities are willing to collaborate with us to address this matter. In 2015, two sites were completely closed and only intermittent exploitation was observed at the other.

**MM9 SITES WHERE RESETTLEMENTS TOOK PLACE, THE NUMBER OF HOUSEHOLDS RESETTLED IN EACH, AND HOW THEIR LIVELIHOODS WERE AFFECTED IN THE PROCESS**

Indicator Components	Ambatovy	Moa
Sites where resettlement of a community occurred	Two villages identified in the mine lease area: Ampangadiantrandraka and Ankazotokana	Resettlement is undertaken by the municipal government. In 2016, no resettlement action was undertaken to the knowledge of Sherritt.
Number of households involved in any resettlement program	36 households identified	-
Number of individuals involved in any resettlement program	169 individuals identified	-
Consultation processes and measures put in place to re-establish the affected community, to mitigate any impacts of relocation, and the outcomes in terms of livelihoods, including sustainable land use	In 2016, a resettlement committee, which includes local authorities, traditional leaders, and community members, met four times. However, the process is still ongoing and no resettlement occurred in 2016. Any resettlement is done in strict adherence to the International Finance Corporation (IFC) Performance Standards, and guidelines set by Madagascar’s national regulatory body.	Not applicable
Significant disputes related to resettlement and the processes employed to resolve outstanding issues	-	-

**MM10 NUMBER AND PERCENTAGE OF OPERATIONS WITH CLOSURE PLANS**

Indicator Components	Units	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Identify operations within the division that have closure plans	%	100	100	100	OGP sites revert to the Cuban state upon closure.
	#	1	1	1	OGP sites revert to the Cuban state upon closure.

**G4-SO4 COMMUNICATION AND TRAINING ON ANTI-CORRUPTION POLICIES AND PROCEDURES**

Indicator Components	Units	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power	Corporate
Total number and percentage of employees to whom the organization's anti-corruption policies and procedures have been communicated and who have been trained on these policies and procedures, broken down by employee category and region*	%	100	100	100	100	–
	#	3,108 + over 8,600 contractors	609	All contracts that empower suppliers to represent Sherritt are to include appropriate contractual safeguards to ensure compliance with our Anti-Corruption Policy. Contractors are not required to do training at this time.		–
The total number and percentage of governance body members that have received training on anti-corruption, broken down by region (training includes being communicated to)**	%	100	100	100	100	100

\* Only Sherritt workers in Canada, Madagascar, as well as expatriates are currently eligible for training. Training for other joint venture partners and workers is not within scope of Sherritt's policy. We are, however, exploring opportunities to provide a high-level presentation on anti-corruption to Cuban nationals, so they have greater awareness of Canadian and international standards in this evolving area.

\*\* Those eligible for this training include Sherritt's Board of Directors and Sherritt employees who sit on boards of subsidiary companies or joint ventures. Non-Sherritt representatives are not within scope of the policy's training requirement.

**G4-SO11 NUMBER OF GRIEVANCES ABOUT IMPACTS ON SOCIETY FILED, ADDRESSED AND RESOLVED THROUGH FORMAL GRIEVANCE MECHANISMS**

Indicator Components	Ambatovy	Fort Saskatchewan	Moa	Oil & Gas and Power
Total number of grievances about impacts on society filed through formal grievance mechanisms during the reporting period	100	–	–	–
Number of grievances about impacts on society filed through formal grievance mechanisms during reporting period – addressed	100	–	–	–
Number of grievances about impacts on society filed through formal grievance mechanisms during reporting period – resolved	100	–	–	–
Number of grievances about impacts on society filed through formal grievance mechanisms prior to the reporting period – resolved	–	–	–	–



## ABOUT SHERRITT

Sherritt International Corporation, based in Toronto, Canada, is a world leader in the mining and refining of nickel from lateritic ores with operations in Canada, Cuba and Madagascar. The company, which is celebrating its 90th anniversary in 2017, is the largest independent energy producer in Cuba, with extensive oil and power operations on the island. Sherritt licenses its proprietary technologies and provides metallurgical services to commercial metals operations worldwide. The common shares of the Corporation are listed on the Toronto Stock Exchange, trading under the symbol “S”, and are widely held by both institutional and retail investors.

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**DIVISIONS/PRODUCTS**

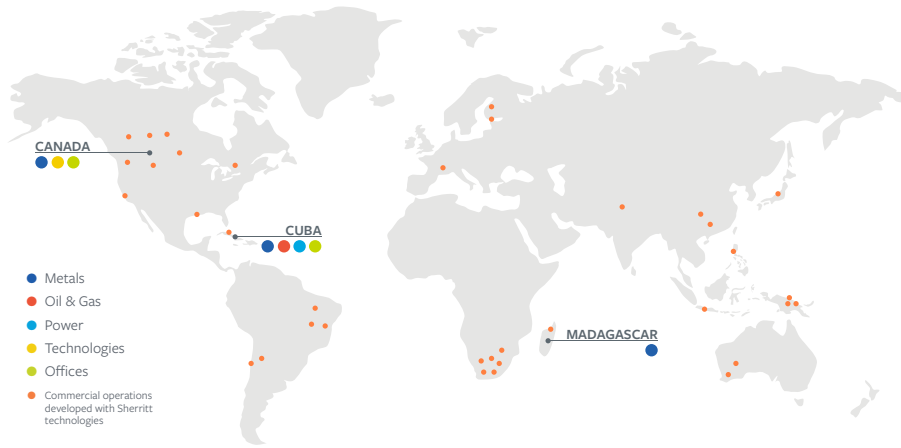
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**2016 KEY INDICATORS**

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**OUR SUPPLY CHAIN**

## MAP/DESCRIPTION



## SHERRITT'S HISTORY

Incorporated in 1927 as Sherritt Gordon Mines Limited, Sherritt has deep Canadian roots; it is one of the oldest Canadian-owned metals producers still in operation. Refer to “Sherritt’s History”, on the right, for more information.

To learn more about Sherritt’s milestone 90th anniversary, please click [here](#).

## DIVISIONS/PRODUCTS

Currently, Sherritt has three operating divisions, as well as a corporate office and a commercial and technologies group. These entities are accounted for in our financial and sustainability reporting.

Entity	Operations, Products and Markets
Metals	<ul style="list-style-type: none"> <li>● <b>Ambatovy Joint Venture</b> in Madagascar (40% ownership) – nickel and cobalt mining, processing and refining for international markets. Watch this <a href="#">video</a> to learn more about our Ambatovy operation.</li> <li>● <b>Moa Joint Venture</b> (50% ownership)                             <ul style="list-style-type: none"> <li>● Moa, Cuba – nickel and cobalt mining and processing.</li> <li>● Fort Saskatchewan, Alberta, Canada – nickel and cobalt refining for international markets.</li> </ul> </li> <li>● <b>Fort Saskatchewan</b> (100% ownership) – ammonia, sulphuric acid and utilities for the Moa Joint Venture’s nickel and cobalt production, and ammonium sulphate fertilizer (a by-product of nickel and cobalt production) for the western Canadian market. Watch this <a href="#">video</a> to learn more about the Fort Saskatchewan operation.</li> </ul>
Oil & Gas	<ul style="list-style-type: none"> <li>● <b>Oil &amp; Gas</b> in Cuba (100% ownership) – exploration and production for Cuba’s energy needs.</li> </ul>
Power	<ul style="list-style-type: none"> <li>● <b>Energas, S.A.</b> in Cuba (33.3% ownership) – electricity production from natural gas for Cuba’s electricity needs.</li> </ul>
Corporate and Commercial and Technologies	<ul style="list-style-type: none"> <li>● <b>Corporate Office</b> in Toronto – corporate administration and management.</li> <li>● <b>Commercial and Technologies</b> – provides technical support, marketing and bulk commodity procurement services to Sherritt’s operating divisions and identifies opportunities for the Corporation as a result of its international activities and research and development activities.</li> </ul>



A more detailed overview of our business and corporate structure can be found on pages 1 to 8 in our [2016 Annual Information Form](#).

In November 2016, Sherritt Technologies was merged with Sherritt’s Global Marketing and Logistics group to form the aforementioned “Commercial and Technologies” group. Otherwise, there were no significant changes to the size of our company or its structure, ownership or supply chains during the reporting period.

## 2016 KEY INDICATORS

### Financial

(C\$ millions, except per share data, as at December 31)	2016
Combined revenue	\$820.20
Adjusted EBITDA <sup>(1)</sup>	\$40.00
Combined free cash flow <sup>(1)</sup>	(\$111.90)
Adjusted loss from continuing operations	(\$427.90)
Net loss from continuing operations per share	(\$1.30)
Cash, cash equivalents and short-term investments	\$309.60
Total loans and borrowings	\$2,185.20
Weighted average number of shares (millions)	294.20

(1) For additional information, please see the Non-GAAP Measures section of the Management's Discussion and Analysis in our [2016 Financial Statements](#).

### Production

- Nickel: 75,033 tonnes (100% basis)
- Cobalt: 6,967 tonnes (100% basis)
- Oil: 15,452 barrels of oil equivalent per day
- Electricity: 2,682 gigawatt hours (100% basis)

### People

- Full- and part-time employees and permanent contractors: 6,376
- Total workforce: 11,520 (including long-term suppliers working on site)

On December 31, 2016, our market capitalization was \$391.3 million and shareholder equity was \$1,097.9 million. Refer to our [2016 Financial Statements](#) for our Management's Discussion and Analysis commentary on our performance during the year.



## OUR SUPPLY CHAIN

Like most commodity producers, we play the role of a value-adding producer in a long supply chain. We require significant goods and services as inputs (the upstream supply chain) to develop bulk products, which we sell to customers that produce finished products for consumers (the downstream supply chain).

As the table below demonstrates, many of our products contribute materially to global sustainable development. For instance: we provide energy to the Cuban people, we produce fertilizer for agricultural development and our high-quality metals are used in clean-technology infrastructure and products, such as alloys for renewable power applications, batteries for electric and hybrid electric vehicles, buildings, airplanes, household goods and appliances, medical devices and much more. For more information on how nickel is used in society, visit the [Nickel Institute’s website](#).

Business	Key Inputs	Sherritt’s Contribution	Key Customers
Metals	Energy products, sulphuric acid, sulphur, limestone, engineering/technical expertise	Mining, processing and refining to produce finished nickel and cobalt and a fertilizer by-product	<ul style="list-style-type: none"> <li>• Car-component manufacturers</li> <li>• Steel producers</li> <li>• Battery producers</li> <li>• Agricultural producers</li> </ul>
Oil & Gas	Current technological drilling practices	Drilling and extraction of oil	<ul style="list-style-type: none"> <li>• CUPET, Cuba’s national oil company, for national energy needs</li> </ul>
Power	Raw natural gas	Processing of gas to produce electricity and by-products, such as condensate and liquefied petroleum gas	<ul style="list-style-type: none"> <li>• UNE, Cuba’s electricity utility, for the national grid</li> <li>• CUPET, for industrial processes and domestic needs</li> </ul>

Refer to [Operating Ethically](#) for a description of how Sherritt applies anti-corruption and human rights requirements to its supply chain.

## ABOUT THIS REPORT

This report describes our sustainability performance for the calendar year of January 1, 2016 through December 31, 2016. We report on an annual basis, with any material sustainability information included in our quarterly disclosures through the course of the year. Our most recent annual sustainability report covered the period from January 1, 2015 through December 31, 2015.

We have structured this report to align with our sustainability framework. For each pillar, we disclose our management approach and performance in relation to our material issues. This report was prepared in accordance with the Global Reporting Initiative's G4 Sustainability Reporting Guidelines – Core option. A full Global Reporting Initiative index and performance table can be found [here](#).

The 2016 sustainability report has not been externally assured.

