



**NEXTSOURCE**  
materials

# 2023

## ESG Report



# About this Report

This report provides information on our sustainability performance for the 12 months ending 31 October 2023. During this period, we transitioned from project, through construction to steady state operations at our principal operational site, Molo Graphite Mine, in Madagascar. Where relevant, we have provided qualitative context from earlier periods.

This report has been prepared with reference to the GRI Standards and in alignment with other relevant formats including the ICMM and TCFD.

For information on these reports, please email [markus@nextsourcematerials.com](mailto:markus@nextsourcematerials.com) and [brent@nextsourcematerials.com](mailto:brent@nextsourcematerials.com)

To review other disclosure documents, please visit our website: <https://www.nextsourcematerials.com/>



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**Craig Scherba, P. Geo.**

Director, President & Chief Executive Officer

## CEO Message

**It** gives me great pleasure to introduce NextSource's first ESG Report which covers the 12 months period ending 31 October 2023.

It has been a year full of challenges and achievements as we have progressed Molo graphite mine through the permitting, construction and commissioning stages.

In this report you will find an overview of the range of initiatives and activities put in place for us to operate as a responsible miner, actively de-risking our operation, realising opportunities and moving beyond compliance.

As someone intimately involved with the development of the Molo project since its discovery, I am particularly proud of the high rate of project and local staff retention we have achieved. This ensures that our relationship with our host community is open, robust and mature. As our community and host government observe our transition to steady-state operations our relationships will continue to deepen on the basis of mutual respect and understanding of all parties' challenges, responsibilities and expectations. Conscious of being the largest employer in our region, as well as the central nature of our product in the global energy transition, we will continue to work hard to manage our energy and resource usage.

As you will find in the pages of this report, our journey has just begun. We will continue to deepen the systems that generate the datasets that over time allow us to demonstrate a credible performance as a responsible, vertically integrated graphite producer.



# Highlights/Summary

## About NextSource

**NextSource Materials Inc.** is a battery materials development company based in Toronto, Canada that is intent on becoming a vertically integrated global supplier of battery materials through the mining and value-added processing of graphite and other minerals. NextSource owns the Molo Graphite Mine (Molo) in the Province of Toliara, southern Madagascar, one of the world's largest and highest quality graphite deposits and we are developing a downstream value add business in Mauritius. NextSource Materials is listed on the Toronto Stock Exchange (TSX) under the symbol "NEXT" and on the OTCQB under the symbol "NSRCF".





We aspire to be a leading global supplier to battery and vehicle manufacturers.

## Our contribution to the energy transition

The shift away from fossil fuels is being driven by an international consensus that the world's carbon footprint must be managed and reduced.

NextSource views climate change and its projected impacts as an opportunity rather than a set of potential risks. The rise of climate awareness in parallel with a near-global energy transition, particularly within the automotive sector, has resulted in a significant increase in demand for graphite, a key component in battery manufacturing. However, NextSource is aware of the risks associated with climate change, and therefore its responsibility to identify, prioritise and mitigate those risks.

Renewable energy and the electrification of vehicles are a core component of this transition.

Graphite will play a central role in the transition as it is a key battery material, and vital to other applications and technologies that will be key contributors to the energy transition and e-mobility revolution.

As a producer of graphite, a critical material for EV batteries, NextSource is committed to being part of the global energy transition by using sound social and environmental management practices at every stage of the project cycle. As a responsible producer, we expect the market to recognize NextSource as a preferred supplier.

The Company is developing a fully integrated value chain for responsibly produced battery anode material for the growing fuel-cell and lithium battery markets.

By embedding sustainable practices and full traceability throughout our value chain we aspire to be a leading global supplier to battery and vehicle manufacturers, generating value for shareholders, employees and host communities.





# Our Operation

## Molo Graphite Mine

**NextSource** owns the Molo Graphite Mine (Molo) in the Province of Toliara, southern Madagascar, one of the world’s largest and highest quality graphite deposits.

Phase 1 mine operations is being optimized to reach nameplate production capacity of 17,000 tpa of SuperFlake® graphite concentrate and plans for a significant expansion is well advanced.

Phase 1 is powered by a solar-hybrid power plant that is expected to reduce CO<sub>2</sub> emissions by over 2,275 tpa.

NextSource has long-term offtakes with established industrial partners that account for more than 100% of the expected Phase 1 production of SuperFlake® graphite concentrate.





# Highlights



First production initiated June 2023



Zero Fatalities and Zero LTIs



Solar Hybrid Plant is fully operational and will provide up to 35% of Molo's complete system power needs from renewable energy, significantly reducing the annual carbon emissions by 2,275 tonnes



More than two-thirds of our workforce are from the local and regional communities



The supply of educational materials kits for local schools in Madagascar benefiting 485 children



Initiated 12 internships and on the job training opportunities in services roles





# Our Approach

## Governance

**NextSource Materials** believes robust accountability mechanisms and governance structures are essential to running a truly sustainable business.

Since discovering the deposit 10 years ago, NextSource has been attuned to the opportunities and risks in our ESG policies and strategies. While graphite is a core component of the global energy transition from fossil fuels, stakeholders expect projects to be developed in a socially and environmentally responsible manner – something NextSource has striven to do.

To complement our Sustainability Policy (<https://www.nextsourcematerials.com/wp-content/uploads/2023/11/Group-Sustainability-Policy.pdf>) NextSource has established a Sustainability Committee, which is charged with setting and monitoring the implementation of our ESG policies and strategies. The Committee has six key focus areas: Sustainability Management Systems, Workplace Health & Safety, Environment, Our Stakeholders, Human Rights, Climate Change and Reporting.

NextSource seeks to manage material sustainability matters through the systematic assessment of risk and opportunities. With its own Charter, (<https://www.nextsourcematerials.com/wp-content/uploads/2023/06/Governance-Manual-SUSTAINABILITY-COMMITTEE-CHARTER.pdf>) and an Independent Chairperson holding relevant experience, the Committee Chairperson reports to the Board on significant issues. To fulfill their duties, the Chair has information gathering powers, such as unrestricted access to records and senior management as deemed necessary. The Committee can also obtain independent professional advice if it sees fit.

As the Molo mine moves closer to steady state operations, the SD Board Sub-Committee has shifted to quarterly meetings. At these meetings, Committee members will review quarterly performance updates, as well as briefings on material and strategic issues relevant to the Company's current and future context.





## Our Approach to Sustainability

From exploration of the deposit, construction of the plant, to now entering the production stage, an ethos of responsible management has been ever-present. Continuity of the management team has also played its part—not only in creating a sustainable business operation, but in helping foster good multi-stakeholder relations.

From the outset of development of the Molo Project, NextSource has been guided by the requirements of internationally recognised environmental management practices. Those include the International Finance Corporation's (IFC) Performance Standards, the Equator Principles, and the UN's Sustainable Development Goals (UNSDGs).

NextSource's sustainability framework is built around:

- A focus on the economic, environmental and social needs of all our stakeholders today, and in the future
- Respectful and transparent engagement with all our host communities and stakeholders in our operations
- Consistent and uncompromising adherence to ethical corporate governance and human rights principles with all stakeholders
- A risk-based approach to the protection of biodiversity and natural resources
- Safeguarding the health and safety of our workforce and host communities
- Minimizing environmental and social impacts and creating value for stakeholders
- Promoting the use of renewable energy sources in our operations, commercial activities and stakeholder communities
- Responsible practices as we foster a circular and sustainable battery material value chain

## Sustainability Objectives

We will establish formal, measurable targets once we enter full scale production at the Molo Graphite Mine with solid data sets. However, we seek:

- To be recognized as a preferred supplier of responsibly produced battery anode graphite.
  - › Through full transparent product traceability
  - › Full GHG, Water & Human Rights Disclosure as per Global Battery Alliance (GBA) requirements.
- To continue to improve our health & safety performance:
  - › Zero fatalities
  - › No occupational disease

## Environmental Management

- No serious environmental incidents
- Energy & Climate Change
  - › Develop a Climate Action Plan for Board Approval by 2024
  - › Maintain a minimum 30% of overall energy from renewable resources
  - › Identify viable carbon offset projects aligned to our Social projects objectives.
- Fundamental review of Corporate Social Responsibility Initiatives to include clear objectives following our transition into steady production to have the most beneficial results for our stakeholders.



# Host Communities & Social Impact

**We** take a long-term approach to our relationships with our host communities and stakeholders, building constructive partnerships for mutual benefit. We engage in transparent two-way dialogue with our stakeholders to establish common understanding, collaborative activities, and work towards mutually beneficial solutions for sustainable host community development.

We completed local and regional stakeholder and community engagement through ONE's (Office Nationale pour l'Environnement) technical evaluation process which consisted of site visits and separate consultations. Since the exploration programs on the Molo project began 10 years ago, the Company has been the largest formal employer in the region. More than two-thirds of our workforce is drawn from local and regional communities, and we continue to give preference to suitably qualified local candidates from these communities and have enjoyed low rates of staff turnover. We also have a formal policy to limit the number of expatriate staff while at the same time remaining mindful that we cannot adopt a predatory recruitment policy in a situation of scarce local specialist skills.

As at 31 October 2023 there were 174 full-time employees working across our Madagascar operations. Of these 17 or 10% were female. In addition there were 45 contractors working on various projects associated with the commissioning phase. We expect the latter figure to decline substantially as we move towards steady state operations.

In addition, the Company has initiated 12 internships and on the job training opportunities in services roles, designed to lead to longer-term employment opportunities on the mine and in the region. Other social projects have included, the construction of sports facilities in Fotadrevo, solar-based street lighting in neighbouring villages as well as rehabilitation of parts of the principal road connecting Fotadrevo and the operation. NextSource has initiated practical agricultural training for enhanced vegetable production for the women of Beamalo and Ambararata, supported by the provision of seed and fertilizer. Our community development projects are guided by a key finding in the project ESIA that heavy reliance on local suppliers would generate a negative impact in the form of food inflation which would affect our entire host community. We are therefore working to develop both a local and regional supplier base partnering with suppliers whom can assist in developing beyond single-customer contracts.

In line with the conditions of our operating permit we have also initiated reforestation projects in surrounding communities, including establishing 80 hectares of mixed food and timber species at Satranarivo. Following engagement with the local community and understanding their concerns of the scarcity of suitable land for food production, we did not fully achieve our reforestation targets for the past year and are working with the authorities and local communities to navigate where reforestation does not compete with food production.

## **Case Study:** **Local Educational Infrastructure**

Over the past few years, we have also invested extensively in local educational infrastructure to support our host community with targeted interventions and social projects. Significant work has been done to improve the local school's infrastructure and the provision of education materials. This work includes the rehabilitation and construction of school canteens in neighboring settlements of Beamalo and Sonjarano, the provision of educational materials kits for the local schools benefiting 485 children as well as providing school and library books, teaching materials and teacher uniforms.





# Human Rights

**NextSource** is committed to building – and maintaining – positive relationships with the local communities where our operations reside. An integral part of that commitment is supporting the human rights of our workforce, something we had earlier identified as a potential material risk for our operations. For those reasons, it is important that NextSource is clear about promoting an ethical, non-discriminating organizational culture. A business environment free from all forms of inappropriate, unethical or coercive behaviour, is equally important.

As a result, NextSource has created its own Human Rights Policy (<https://www.nextsourcematerials.com/wp-content/uploads/2023/11/Group-Human-Rights-Policy.pdf>) that applies equally to Directors, employees, contractors and service providers. It is compliant with national legislation and aligned with internationally recognised frameworks, such as the Universal Declaration of Human Rights and the International Labour Organisation's (ILO) Declaration on Fundamental Principles and Rights at Work.

The policy, which was approved by the Board earlier in the year, outlines NextSource's commitment to upholding and respect human rights. From grievance mechanisms, protecting the activities of the local community, through to preventing modern slavery, it outlines the areas in our business where these considerations are most relevant.

## Whistleblower and Grievance Mechanism

With that in mind, NextSource is pleased to report the progression of several key workstreams. For instance, we have implemented a whistleblower and grievance mechanism tailored to our operating environment. Be it corporate staff, operational, suppliers or members of the local community, it allows any person within NextSource's sphere of influence to report a concern anonymously and confidentially. While no whistleblower submissions have been received, the grievance process has been used by members of our host community.

In that case, grievances stemmed from discussions on land compensation at Molo mine and the approximately 30 land compensation beneficiaries who disputed either the size or the value of land for which they were to be

compensated. This figure constitutes a minority within the total number of local beneficiaries of compensation payments for Molo's use of, or access to their land. Matters were complicated by an exceptional rainy season which allowed for opportunistic expansion of agricultural planting during the compensation negotiations. As of 31 October 2023, all grievances have been resolved and compensation levels formally agreed upon in a manner that did not reward opportunistic claims. These disputes have since been amicably resolved, with both sides able to settle on revised figures. We view these negotiations as demonstrating the integrity of the process.

## Business Conduct & Transparency

Our Business conduct and Anti-Bribery and Corruption (ABC) Policy (<https://www.nextsourcematerials.com/wp-content/uploads/2022/06/Anti-Corruption>) provides clear guidance for all levels of our organization as to what it means to 'act with integrity.' The content and implications of the policy has been actively communicated at all levels in accessible language and format. The Policy covers conflict of interest, fraud, corruption, protection and proper use of company assets and IP, compliance with regulatory requirements, and compliance obligations.

As a Canadian corporation, NextSource is subject to the Canadians Corruption of Foreign Public Officials Act (CFPOA). The legislation prohibits Canadian and Canadian-controlled corporations, including their intermediaries, from making (or offering) improper payment of any kind to foreign public officials where the ultimate purpose is to obtain (or retain) an improper business advantage. Our ABC Policy prohibits violation of the CFPOA and other applicable anti-corruption laws.

To reduce risks in this area, we have adopted a formal response procedure to public requests for assistance. This in-house donation procedure applies to all public requests for assistance made to Molo Graphite Mine, and their staff. In keeping with our core company values, NextSource will not entertain requests from political parties, individuals or other entities deemed to be connected to political parties. While consideration will be given to legitimate public sector institutions, such as requests relating to humanitarian or disaster relief, the same decision-making processes apply.

# Health & Safety

**The** health and safety of our people is our first priority. As a mining company, we are aware of the potential impacts of our operations. To ensure we mitigate the risks to our employees we have set clear expectations with our workforce, contractors and suppliers regarding standards of safe and responsible behavior by providing regular induction, training and empowering our people to cease work they believe is unsafe or compromises any of our sustainability objectives guided by our policies.

In Madagascar, 100% of our staff and contractors working on site have undergone fit for work assessments, inductions and competency training to ensure they can operate safely. At this stage of the project, our principal safety risks are from vehicles and the handling of electrical equipment. We have focused our efforts on risk minimization as well as safety and competency training of our workforce as part of implementing a company-wide Occupational Health and Safety management system based on ISO 45001. As we move to the production stage of our operations, we plan to certify the system formally to that standard.

To demonstrate our commitment to a safe and healthy workplace, we track a series of key indicators. Those include LTIs, near misses, toolbox talks, workplace inspections, and equipment damage. Any incident is recorded and analyzed and used to learn from to ensure we mitigate the risk in the future. To date, due to the training and systems in place, the operation has sustained zero fatalities and no LTIs. Based on the evolving datasets we will develop interventions to identify continual improvement opportunities as the project moves into steady-state operations.

Molo also operates an on-site medical facility registered and monitored by the Malagasy authorities, to provide medical, occupational health and emergency coverage for our workforce. All staff have undertaken 'fit for work' screening tests to develop an occupational health baseline. In cases where our employees or contractors have been diagnosed with chronic conditions, they are placed into suitable line functions at no disadvantage to themselves and regularly monitored for adherence to their prescribed medication/ treatment regime. Strict patient confidentiality is preserved in all cases and staff have received training in respect of their medical rights and responsibilities.

To contain the risk of infectious diseases in the area, Molo operates a program to limit uncontrolled waste disposal. The site also operates a malaria control program consisting of preventative and suppressive measures on site and among our host community.



## Case Study: Safety Reporting

Near-miss reporting is a crucial aspect of proactive safety management as it points to potential hazards and helps prevent future incidents. Early on our safety staff identified a reluctance to report near-miss incidents. The reasons for this hesitancy ranged from concerns about potential repercussions to a perception that near-miss incidents were not as crucial as actual accidents. Recognizing the importance of addressing near-miss incidents to prevent potential accidents, management introduced a series of interventions ranging from workforce training on the importance of near misses, to anonymous reporting to encourage reporting and foster a proactive safety culture. An incentive scheme to recognize and reward individuals and teams actively participating in near-miss reporting is also being developed to reinforce the idea that near misses are crucial components of the safety improvement process.



## **Case Study:** **Explosives Handling and Community Health & Safety**

To ensure we are aligning with best practice for explosive handling, our procedures include a comprehensive training program on all phases of explosives handling from receiving, storage, use and destruction. This equips all relevant personnel with the knowledge and skills needed to handle explosives with the utmost care. All staff involved in any way with the storage, handling and use of explosives have received extensive training in the safety procedures and standards through our well-established Drilling and Blasting Code of Practice, Safe Operating Procedures and are required to document in detail each step in the handling of explosives.

The Code of Practice also requires formal pre-blast engagement with our community to ensure their understanding of the necessity to clear designated areas of people and livestock at the required times. Pre-blast notification to nearby residents and businesses about the blast schedule and safety measures are communicated and written notifications are handed over against signatures of the recipients and representatives of each affected village. Where the pre-blast risk assessment requires it, road closures and detour plans are communicated in 72 hours in advance of the intended blasting operation. During the blasting process Molo staff are deployed to ensure the blast safety zone remains clear.

As required by national legislation detailed reports covering pre-blast communication, on-site pre-blast safety measures, blasting volumes and explosive details, as well as post-blast community feedback are assembled into a report provided to the Ministry of Mines. Through open and transparent engagement Molo has maintained an incident-free track record to date.



# Environment

## Energy / Climate Change

### Carbon Footprint

As NSM is still in its commissioning phase, the calculation of carbon emissions takes account of this, resulting only in a total of 733.8 Tonnes of Carbon Dioxide Equivalents (CO<sub>2</sub>e) emissions from direct energy consumption (i.e., Scope 1).

Due to the remote location of Molo mine there is no access to electricity from the national grid, therefore requiring the use of on-site generators to produce electricity for our mining processes and all staff accommodation related activities. This means that NSM does not have any significant Scope 2 emissions from indirect energy consumption to report, noting that office electricity consumption in Antananarivo and Toronto is immaterial.

Due to the nature of the company at this stage, NextSource has decided to wait until data collection systems have been expanded before attempting to calculate Scope 3 emissions.

At this stage of the company's development, the consumption of fuels is limited to diesel, aviation fuel (used for charter flights), oxygen and acetylene (used for welding), LPG (used for cooking), butane (used for drying graphite in process) and petrol.

As the mine continues to develop, it is expected that the reporting of NSM's carbon footprint will expand to include additional fuels (if/when necessary), contractor fuel consumption, particularly for the transportation of equipment and supplies into the mine and product from the mine to the shipping and logistics personnel at nearby ports, and key Scope 3 emissions (e.g., Business Travel).

At this time, no targets have been set for reducing carbon emissions and/or improving carbon efficiencies because current data does not reflect what will ultimately become a reasonable baseline once the mine becomes fully operational. However, all procurement decisions already include due consideration for energy and carbon efficiency, requiring all equipment and vehicles to operate with optimal fuel consumption.

#### Scope 1 Carbon Emissions

Fuel Type	Unit of Measure	Consumption	Carbon Emissions (kg CO <sub>2</sub> e)
Diesel	Litres	257 590	690 341
Aviation Fuel	Litres	8 267	21 003
Oxygen	Kilograms	5 760	2 362
LPG	Kilograms	2 304	6 935
Acetylene	Kilograms	1 728	5 842
Butane	Kilograms	1 536	4 547
Petrol	Litres	1 200	2 772
Total Scope 1 Carbon Emissions			733 802



# TCFD Disclosure

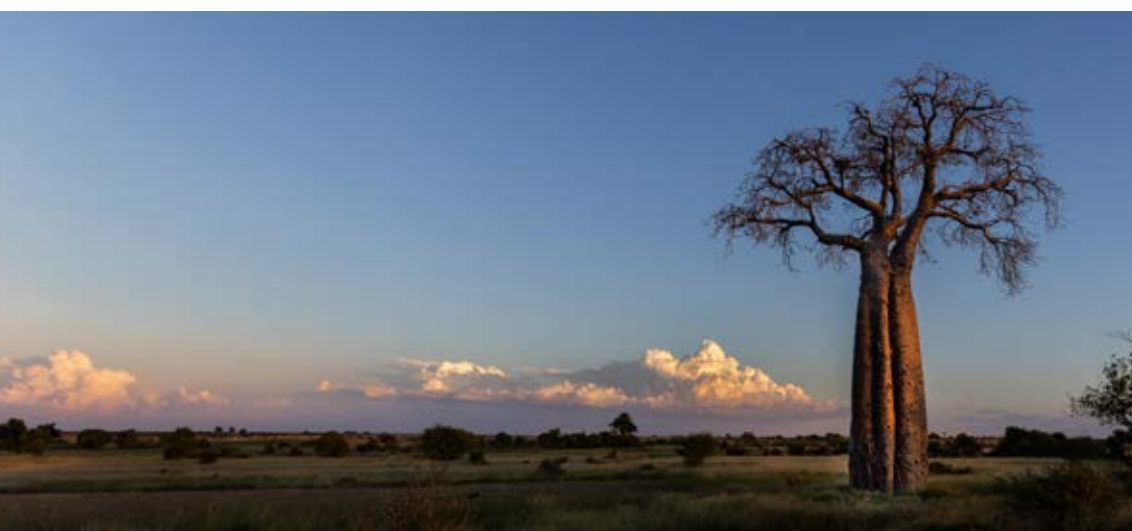
At present, NextSource includes climate change as one aspect of overall environmental risk management instead of a specific risk theme. However, climate change has been recognised as a material issue, both from an opportunity and risk perspective. On the opportunity side, graphite is a core component of the global energy transition from fossil fuels, with the projected future demand of graphite requiring not only increasing production, but also production that meets increasing pressure from stakeholders to produce graphite in both a socially and environmentally responsible manner.

As a mining company in the commissioning stage, NSM employs a systematic approach to risk management across its operations and logistics. Operating in southern Madagascar, in a remote location annually impacted by heavy rains and the potential for extreme weather events, the issue of climate-related adverse impacts is a key consideration, particularly with respect to the movement of mined material.

TCFD Recommendation	Response
<b>1. Governance</b> <b>Organisational governance on climate-related risks and opportunities disclosures</b>	
<b>a.</b> Detail the Board’s oversight of climate-related risks and opportunities.	<p>Climate-related physical and transitional risks are identified and prioritised within both the Sustainability Committee (SC) and the Audit and Risk Committee (ARC), as one set of potential risks within the overall risk profile of the company.</p> <p>The SC is chaired by an Independent Non-Executive member of the Board and is scheduled to meet quarterly (from FY2024).</p> <p>The ARC consists of three Independent Non-Executive members of the Board and meets no less than quarterly (plus special meetings as/when required).</p> <p>Both the SC and ARC provide oversight in ensuring that all social and environmental risks are managed effectively by Management, inclusive of due diligence and effective planning to identify and mitigate potential climate-related risks.</p>
<b>b.</b> Detail management’s role in managing and accessing climate-related risks and opportunities.	<p>NSM Management includes a VP Sustainability (VPS) whose responsibilities include the regular consideration of potential climate-related impacts. The VPS is empowered to ensure that all contractors and suppliers duly consider potential climate-related impacts, both in terms of potential risks to the company and risks on the community and/or physical/natural environment as a result of mining activities.</p>



TCFD Recommendation	Response
<b>2. Strategy</b> The potential and actual impacts of climate-related risks and opportunities on the business, financial planning, and strategy of the organisation if/and when such information is material	
<b>a. Short-, medium- and long-term climate-related risks and opportunities identified by the organisation.</b>	<p>NSM has identified 13 significant climate-related risks, within its Enterprise-wide Risk Register, which are categorised as follows:</p> <ul style="list-style-type: none"> <li>• Impacts on logistics for the movement of equipment and material into the mine and product to market.</li> <li>• Impacts on the cost of primary inputs, such as fuel.</li> <li>• Impacts on worker health and safety, including prolonged exposure to heat and increased tropical disease rates.</li> <li>• Impacts on water supply to both the mine and surrounding communities due to increased frequency and intensity of floods, including the potential for increased water-related social unrest.</li> <li>• Impacts on mine infrastructure resulting from increased frequency and intensity of adverse weather events, such as cyclones and floods.</li> </ul> <p>Due to the current NSM's operational status, the 13 climate-related risks have not yet been categorised relative to timelines.</p>
<b>b. Detail the impacts of the identified climate-related risks and opportunities on the business, strategy, and financial planning of the organisation.</b>	<p>Given NSM's current status of mine development, risks are factored into decision-making for plant, equipment, and other facilities, with cost analyses conducted to determine the required levels of additional investment to effectively plan for potential climate-related impacts.</p> <p>Decision-making at the budgeting and procurement process levels is informed by environmental, health &amp; safety considerations, inclusive of exposure to climate-related impacts. This most frequently occurs with respect to all decisions related to logistics, noting that transportation of inputs and final product are among the highest rated climate-related risks as the remoteness of the mine already poses logistical challenges that could be exacerbated by climate-related adverse weather.</p>
<b>c. Detail the flexibility of the strategies set by the organisation, considering variable climate-related scenarios (including a 2°C and lower scenario).</b>	<p>Although NSM does not currently expect that a 2°C rise in global temperatures will have an immediate and/or direct impact on the mine – aside from the potential for increasing frequency and intensity of adverse weather events – alternative strategies will be developed as the operation transitions to steady state operations for ensuring that impacts on the business will be effectively mitigated.</p>





TCFD Recommendation	Response
<b>3. Risk Management</b> <b>Organisational governance on climate-related risks and opportunities disclosures</b>	
<b>a. Detail the organisational processes for identifying and assessing climate-related risks.</b>	<p>Climate-related risk identification occurs during ARC and SC meetings, although informed by ongoing environmental monitoring and evaluation procedures on the mine. In addition, NSM's stakeholder engagement processes have been designed to ensure that risks raised by one or more stakeholders are duly considered for possible escalation to Executive or Committee assessment.</p> <p>The annual Risk Register process, a function of the ARC, requires input from all department heads, inclusive of the VPS, with the expectation that risks are effectively raised as/when they meet Committee-level severity.</p>
<b>b. Detail organisational processes for managing climate-related risks.</b>	<p>The VPS is responsible for ensuring that climate-related risks are duly considered in design, engineering, procurement, and deployment activities, taking ultimate responsibility for ensuring that sufficient due diligence occurs to proactively manage negative impacts and/or potential positive outcomes.</p> <p>The VPS ensures that stakeholder engagement, inclusive of employees, regularly includes scenario planning to assess whether corporate understanding of local conditions and/or cultures are appropriate for designed mitigation strategies.</p>
<b>c. Detail how the processes for identifying, assessing and managing climate-related risks are incorporated into the overall risk management of the organisation</b>	<p>Climate-related risk identification, assessment and mitigation occurs in accordance with NSM's risk management policies and procedures, inclusive of an annual Risk Register process.</p>
<b>4. Metrics &amp; Targets</b> <b>Detail the metrics and targets used to manage and assess applicable climate-related risks and opportunities, if/and when such information is material</b>	
<b>a. Outline the metrics used to assess climate-related risks and opportunities that are in line with the organisation's risk management process and strategy.</b>	<p>Due to the current status of NSM as a mine in commissioning, data collection for the establishment of baselines against which targets can be set is still a work-in-progress.</p> <p>Until such time as reliable data trends can be obtained – rather than estimated – from the mine in its fully operational phase, no baselines will be finalised, nor targets set.</p>
<b>b. Disclosure of Scope 1, Scope 2 and if available Scope 3 GHG emissions and their related risks.</b>	<p>Scope 1 and 2 emissions have been calculated for the current reporting period and are published accordingly. However, these emissions do not reflect the full scale of emissions expected once the mine is operating at its full capacity.</p>
<b>c. Detail targets used by the organisation to manage climate-related risks and opportunities as well as performance against targets.</b>	<p>Due to the current status of NSM as a mine in commissioning, no targets have been set, and no information pertaining to progress against prior targets is available.</p>

## Summary of Climate Opportunities and Risks

Risk Horizons	Likelihood
Short: 0-5 years	<b>Remote:</b> A rare combination of factors would be required for this incident to occur (<1% chance)
Medium: 5-10 years	<b>Unlikely:</b> A rare combination of factors would be required for this incident to occur (<5% chance)
Long: 10+ years	<b>Possible:</b> Incident could occur if a number of additional factors are present (5-25% chance)  <b>Likely:</b> Not certain, but incident could occur with one normally occurring additional factor (25-75% chance)  <b>Extreme:</b> Almost inevitable that the incident could occur (>75% chance)

Opportunity/Risk	Description	Potential Impacts	Mitigations
Increased demand for graphite	<p>Among other uses, graphite is a key component in the manufacture of batteries (anodes).</p> <p>Increased global awareness of climate change and its related impacts has resulted in a shift towards renewable energies, including the move towards new energy vehicles (NEVs), creating opportunity for increased production of graphite at a potentially higher market value.</p> <p><b>Timeframe: 0-5 years</b> <b>Likelihood: Extreme</b></p>	<ul style="list-style-type: none"> <li>Increased demand for graphite</li> <li>Increased market price, increasing the viability of mines in more remote locations</li> </ul>	NSM has invested heavily in the development of its mine in southern Madagascar, despite logistical challenges related to importing goods and services to the mine and exporting mined product.





Opportunity/Risk	Description	Potential Impacts	Mitigations
Impacts on logistics	<p>The movement of equipment and material into the mine and product out to market is challenged by poorly developed roads.</p> <p>Increased frequency and intensity of adverse weather is expected to worsen road conditions, particularly in heavy rains and high wind conditions.</p> <p><b>Timeframe: 0-5 years</b> <b>Likelihood: Probable</b></p>	<ul style="list-style-type: none"> <li>• Deterioration of road conditions</li> <li>• Extended road haulage times</li> <li>• Increased cost of road haulage</li> <li>• Increased risk of vehicle accidents and/or damages</li> <li>• Increased cost of vehicle insurance</li> <li>• Periods of transport stoppage, potentially to the extent of forcing mine work stoppages</li> <li>• Increased cost of goods transported by road haulage, including fuel, food and other basic needs</li> <li>• Impacts on worker rotation period for non-local staff leading to potential increased flight risk of key personnel (and thus loss of skills)</li> </ul>	<p>A Director, Logistics and Supply Chain has been appointed to monitor road conditions on a regular basis to ensure that road infrastructure does not deteriorate to the point of risking the safety of drivers, vehicles and/or goods in transport.</p> <p>Alternative transportation routes have been planned to redirect traffic in/out of the mine as conditions require it.</p> <p>Alternative modes of transportation, including the use of river barges, is being evaluated.</p>



Opportunity/Risk	Description	Potential Impacts	Mitigations
Impacts on primary inputs	<p>As demand for certain goods increases, or as supply levels decrease, the cost of key inputs, such as fuel, will increase.</p> <p><b>Timeframe: 5-10 years</b> <b>Likelihood: Likely</b></p>	<ul style="list-style-type: none"> <li>Increased demand for scarce supplies</li> <li>Increased cost of key inputs, particularly fuel</li> <li>Lower profitability of the mine</li> <li>Decreased access to capital for ongoing mine expansion and/or maintenance</li> </ul>	<p>Localisation of the supply chain has been implemented wherever possible, including the sourcing of basic inputs (e.g., food supplies) and critical skills, such as electricians and some artisans.</p> <p>Where necessary, mitigation will expand to include the development of new capacity to meet rising demand for skills in the local area.</p> <p>A commitment to renewable energy, particularly self-generated solar power, has been implemented with the construction of the on-site solar facility, to limit the impact of potential shortages or cost increases of fuel.</p>
Impacts on worker health & safety	<p>Increased average temperatures could result in impacts on equipment, vehicles and employees exposed to prolonged periods of extreme heat.</p> <p>In addition, increased temperatures are expected to increase the frequency and intensity of exposure to certain tropical diseases, including Malaria.</p> <p><b>Timeframe: 5-10 years</b> <b>Likelihood: Possible</b></p>	<ul style="list-style-type: none"> <li>Increased frequency and/or severity of heat exposure related injuries and/or illnesses</li> <li>Decreased productivity due to the effects of heat stress on workers</li> <li>Increased frequency and/or severity of tropical disease occurrences, such as Malaria</li> </ul>	<p>NSM has developed a closed-loop system for water recycling within the plant to limit the amount of new water being removed from underground sources.</p> <p>On-site water treatment facilities are in place to reduce the risk of water-borne diseases.</p> <p>Mine boreholes are drilled to access aquifers below the water table levels used by community members, thereby reducing the impact of mine water consumption on local supply to communities.</p> <p>As part of its CSR the operation assists neighbouring villages with maintenance of their wells.</p>



Opportunity/Risk	Description	Potential Impacts	Mitigations
Impacts on mine infrastructure	<p>The increased frequency and/or intensity of adverse weather events, such as cyclones and floods, is predicted to place mine infrastructure – accommodation, tailings dams, processing facilities – at risk of physical damage.</p> <p><b>Timeframe: 5-10 years</b> <b>Likelihood: Possible</b></p>	<ul style="list-style-type: none"> <li>Increased risk of injuries on duty resulting from weather-affected infrastructure.</li> <li>Increased cost of facilities and/or equipment maintenance</li> <li>Decreased productivity due to work stoppages resulting from damages to mine infrastructure</li> </ul>	<p>Facility risk and maintenance registers have been developed to identify areas of specific vulnerability.</p> <p>Business continuity/disaster recovery plans have been developed for current on-site facilities and will be updated once the mine has been fully developed and commissioned.</p>

### Case Study: Solar energy

We have successfully completed commissioning and achieved full operations of the solar and battery hybrid power plant (the “Solar Hybrid Plant”) at Molo. In partnership with CrossBoundary Energy (CBE), Africa’s leading supplier of clean electricity, the Solar Hybrid Plant is designed to generate up to 35% of the Molo mine’s steady-state power requirements from renewable energy significantly reducing all-in sustaining costs and carbon emissions by 2,275 tonnes annually. The entire PV array, incorporating 4,902 photovoltaic panels, covers an area of 12,663 square meters (1.3 hectares).

We are committed to optimizing the solar component and increasing the renewable energy capabilities available to the mine which could utilize stationary battery storage, expansion of the solar farm or the installation of wind turbines. As part of any potential future expansion of the Molo mine, the Company has set a goal of maintaining the percentage generated by renewable power to at least 35%.





## Environment

The Molo Environmental and Social Impact Assessment (ESIA) was conducted in accordance with IFC Performance Standard (PS) requirements as well as Malagasy national legislation. This ESIA clearly defined the baseline environmental conditions. The environmental management systems that flow from its recommendations aim to systematically minimize environmental impacts at all stages of the project life cycle. The three principal focus areas of the environmental management system for Molo are water, dust and biodiversity. These focus areas have been communicated to our host communities to ensure their understanding of our actions. While the environmental management systems have been developed, the full implementation of the monitoring regimes during the period under review two environmental incidents occurred one of which was the uncontrolled release of process water onto plant grounds from where there was seepage to neighbouring land. To contain such uncontrolled releases additional containment dams have been constructed. The other incident involved the uncontrolled release of sewage arising from equipment malfunction. Here to additional containment infrastructure was built to prevent any release into the environment from a recurrence.







## Water

The Molo Graphite Mine is in south-central Madagascar, a sensitive dryland ecosystem that has historically been impacted by prolonged droughts. In recent decades, the dry forests have also come under pressure from agricultural expansion as people seek to produce more food. Surrounding NextSource's operations, the local community collects their water from shallow, often hand-dug wells or shallow boreholes. For our host community, water access and water quality as well as arable land use are significant concerns on which they continuously engage with us. To ensure a clear separation between Molo's water usage and that of the community we have an on-going, small-scale program of supporting the maintenance and repair of such wells and boreholes. The objective is to avoid a community dependency on the mine for the provision of services such as water.

To manage its own water usage and minimize its freshwater abstraction, Molo has developed a tailored water management plan, comprised of re-use of water within the plant processes, clean/dirty water separation infrastructure and water monitoring. The Storm Water Management plan that has been developed in accordance with IFC Environmental Health and Safety Guidelines for Mining (IFC, 2007), mitigates potential water contamination and ensures a safe working environment. As Molo moves towards steady-state production we have installed a closed-loop system for water recycling within the plant to limit the amount of new water being removed from underground sources. This is supported by extensive surface water management infrastructures consisting of berms and return water dams to prevent, as far as possible, the release of process or 'dirty' water from operating areas while limiting the run-un of rainfall and surface water into operational areas.

We are working to align the management of our mine waste and tailings facilities with the ICMM's Global Industry Standards on Tailings Management (GISTM) to ensure robust safety, governance, water and stewardship, stakeholder management and emergency preparedness in the operation of this facility.

## Dust

The principal source of dust generation at our operations is the ore crushing process. In search for effective control measures, Molo Mine is constrained by the limitations of conventional, water-based sprinkler systems on the graphite process. This process comprises both a wet and dry phase which can make the use of excess water during the crusher phase problematic. In our search for suitable dust suppression methodology, Molo Mine is taking a multi-technology approach comprising a range of physical wind barriers combined with sophisticated 'mister'-based dust suppression systems which can be calibrated to wind conditions as required. To ensure that monitoring data is as dynamic as the suppression system, we have avoided the passive, reactive 'dust bucket approach' and instead are in the process of installing a fully digital monitoring system. This system samples dust across the 2.5 to 10 ppm range to ensure we capture data relating to nuisance as well as occupational exposure dust levels and use this in real-time analysis to inform and calibrate the suppression system.

## Biodiversity

While Madagascar is generally recognized as a biodiversity hotspot, our ESIA process identified the negative impact associated with historical prolonged utilization of natural resources arising from extensive human and grazing pressures. As a result, the ability to protect local biodiversity is constrained by continued host community usage of local natural resources. Initially we were limited to communicating our refusal to purchase or trade in 'bushmeat' or wildlife for our canteen. However, we are formally assessing interventions associated with our social investment projects for the protection and recovery of key fauna and flora species and will be able to report on this in coming cycles.

A Record for Wildlife Sightings process was developed for site personnel to inform the Environmental Department of wildlife sightings. This information while often only provided at a general level, generates vital information regarding the presence of key species and the location of the sensitive habitats they favour. Our recordings are already being utilized in the siting choices of Molo infrastructure components.

## Closure Planning

Planning and providing for the liability associated with the eventual closure and rehabilitation of a mine is an integral part of responsible mining and Next Source Materials has been calculating and regularly updating its datasets for this purpose. Also in the course of Phase 1 construction, the project footprint expanded beyond the area ultimately required for operations due to the long-term presence of on-site contractors. With the demobilization of many such contractors certain impacted areas required rehabilitation. In consultation with our community the project has used the opportunity to combine the rehabilitation of parts of this impacted land with the planting and growth trials of a range of native food and ground cover plant species. The purpose of such trials was to confirm the veracity of the assumptions underpinning the rehabilitation aspects of the evolving closure plan.

Initial results have confirmed the viability of almost all these species trialed in respect of the climatic conditions for the region. The trial remains on-going and the data generated will continue to be incorporated into the assumptions of the mine closure plan. In the short-term, however, the results of this trial, together with the experience gathered in the course of the off-site reforestation projects will inform the scope of a community-based nursery we plan to establish on site in order to effectively support such work throughout the project cycle.



# Consolidated ESG Data Table

Cells shaded in light yellow represent a commitment to ensure disclosure in 2024 based on data collection and collation systems already in development.

Governance		2023	GRI Standards
1	Number of Board Members	6	2-9
2	Number of Board Members who are deemed Non-Executive	5	2-9
3	Percentage of Board Members who are deemed Non-Executive	83.3%	2-9
4	Number of Board Members who are deemed Executive	1	2-9
5	Number of Board Members who are deemed 'Independent'	4	2-9
6	Percentage of Board Members who are deemed 'Independent'	66.7%	2-9
7	Does the company have a publicly available policy on Board Conflicts?	Yes	2-15
8	Does the company have a publicly available human rights policy?	Yes	2-23
9	Does the company have a Whistle-blower Programme in place? POLICY	Yes	2-26
10	Does the company have a Whistle-blower Programme in place? HOTLINE	Yes	2-26
11	Number of Whistle-Blower incidents Reported	0	2-26
12	Number of Whistle-Blower incidents leading to disciplinary hearing	0	2-26
13	Number of employees receiving some form of disciplinary action as a result of a disciplinary hearing	0	
14	Total value of political contributions made to one or more political parties	0.00	415-1
15	Percentage of operations that have undergone a human rights assessment	100.0%	
16	Does the company have formal stakeholder engagement policies in place, including mechanisms for stakeholders to raise issues?	Yes	2-26
17	Total number of complaints received concerning breaches of privacy/personal information	0	418-1
18	Number of allegations of discrimination and/or human rights violations within the workplace	0	
Labour			
19	Number of Employees – Permanent	174	2-7b
20	Number of Employees – Fixed Term (>90 Days)	0	2-7b
21	Number of Employees – Temporary (<90 Days)	0	2-7b
22	Total Number of Contractors	45	2-8a
23	Total Number of Employees and Contractors	219	2-7a & 2-8a
24	Percentage of management (Top and Senior) who are women	14.3%	405-1
25	Percentage of employees who are deemed 'Local'	67.0%	405-1
26	Percentage of employees who are women	9.8%	405-1
27	Total number of employees trained <b>for Awareness</b> , including Induction, Safety and fit-for-purpose on-the-job training	174	404-1
28	Total number of employees trained <b>for skills</b> , including internal and external training interventions and internships	12	404-1

Cells shaded in light yellow represent a commitment to ensure disclosure in 2024 based on data collection and collation systems already in development.

Safety		2023	GRI Standards
29	Number of Fatalities (i.e., injuries on duty leading to death... excluding the deaths of workers not occurring 'at work')	0	403-9a
30	Number of First Aid Cases (FACs, i.e., injuries on duty leading to minor treatments, such as a plaster or a pain tablet)		403-9a
31	Number of Medical Treatment Cases (MTCs, i.e., injuries on duty leading to medical treatment, but no lost days)		403-9a
32	Number of Lost Time Injuries (LTIs, i.e., injuries on duty leading to at least one lost day)	0	403-9a
33	Total Number of Recordable Injuries, including MTCs, LTIs and Fatalities	0	403-9a
34	Fatal Injury Frequency Rate (FIFR, i.e., number of Fatalities per 200 000 person hours worked)	0.000	403-9a
35	Lost Time Injury Frequency Rate (LTIFR, i.e., Number of LTIs per 200 000 person hours worked)	0.000	403-9a
36	Total Recordable Injury Frequency Rate (TRIFR)	0.000	403-9a
37	FIFR Target	0.000	403-9a
38	LTIFR Target	0.000	403-9a
39	TRIFR Target	0.000	403-9a
Health			
40	Number of employees who underwent induction and/or surveillance Medical Fitness Tests (including Diabetes, Hypertension, Heat Stress, etc.)	174	403-9a
41	Number of new cases of NIHL identified	0	403-9a
42	Number of baseline and/or surveillance tests for Chronic Obstructive Airways Diseases (COADs, a.k.a. Chronic Obstructive Pulmonary Diseases)	174	403-9a
43	Number of new cases of COAD identified	0	403-9a
44	Number of baseline and/or surveillance tests for Noise Induced Hearing Loss (NIHL)	174	403-9a
45	Number of new cases of NIHL identified	0	403-9a
46	Number of Malaria cases treated by on-site clinic		403-9a
47	Number of on-site clinic visits for non-occupational injury and/or diseases		403-9a



Cells shaded in light yellow represent a commitment to ensure disclosure in 2024 based on data collection and collation systems already in development.

Environmental			
Energy		2023	GRI Standards
48	Total volume of Diesel consumed for vehicles and/or generators (litres)	257 590	302-1
49	Total volume of Aviation Fuel consumed by chartered flights (litres)	8 267	302-1
50	Total volume of Oxygen consumed for welding and/or other heat generation purposes (kilograms)	5 760	302-1
51	Total volume of LPG consumed (kilograms)	2 304	302-1
52	Total volume of Acetylene consumed for welding and/or other heat generation purposes (kilograms)	1 728	302-1
53	Total volume of Butane consumed for heat generation purposes (kilograms)	1 536	302-1
54	Total volume of Petrol consumed for vehicles and/or other equipment (litres)	1 200	302-1
55	Total Volume of Electricity Purchased from municipal/national supply (MWh)	0	
56	Percentage of Electricity Consumption that was Self-Generated from Solar	35.0%	
Carbon Footprint			
57	Total Carbon Emissions (Tonnes CO <sub>2</sub> e) – Scope 1	733 802	305-1
58	Carbon Emissions (Tonnes CO <sub>2</sub> e) – Scope 2	0	305-2
Water			
59	Total Volume of Water Consumed (m <sup>3</sup> ) – New Purchases and/or Abstractions (excluding recycled water used)		303-5a
60	Total Volume of Water Consumed (m <sup>3</sup> ) – Harvested rainwater and/or internally recycled		303-5a
Waste			
61	Total Volume of Non-Hazardous Waste Disposed (Tonnes) – to Landfill		306-5
62	Total Volume of Non-Hazardous Waste sent for Recycling (Tonnes)		306-4
63	Total Volume of Non-Hazardous Waste Disposed (Tonnes) – to Landfill and Recycled		
64	Percentage of Non-Hazardous Waste disposed of that is sent for recycling		306-4
Biodiversity & Mine Closure			
65	Does the company have a Biodiversity Action Plan in place to minimise impacts on biodiversity and ecosystems?	In Development	304-3
66	Does the company have a Mine Closure Plan in place to minimise long-term mine impacts on biodiversity and ecosystems?	Yes	304-3

# Glossary

<b>ARC</b>	Audit and Risk Committee
<b>CSR</b>	Corporate Social Responsibility
<b>EV</b>	Electric Vehicles
<b>FY</b>	Financial Year
<b>GISTM</b>	Global Industry Standards on Tailings Management
<b>GHG</b>	Greenhouse Gases
<b>GRI</b>	Global Reporting Initiative
<b>IFC</b>	International Finance Corporation
<b>ICMM</b>	International Council on Mining and Metals
<b>LTI</b>	Lost Time Injury
<b>NSM</b>	NextSource Materials Inc.
<b>PV</b>	Photovoltaic
<b>SC</b>	Sustainability Committee
<b>TCFD</b>	Taskforce on Climate-related Financial Disclosure (a.k.a., IFRS S2)
<b>VPS</b>	Vice President: Sustainability







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NextSource Materials Inc. is a strategic materials development company based in Toronto, Canada that is intent on becoming a fully integrated, global supplier of critical battery and technology materials needed to power the sustainable energy revolution. NextSource Materials is listed on the Toronto Stock Exchange (TSX) under the symbol "NEXT" and on the OTCQB under the symbol "NSRCF".