

2010 Sustainability Report



A. Sustainability Report 2010	2
A1. Message from Our President	3
A2. Report Parameters	4
B. Ambatovy's Approach to Sustainability	5
B1. Organizational Profile	6
B2. Key Impacts, Risks and Opportunities	8
B2.1 Impacts.....	8
B2.2 Risks and Opportunitites.....	8
B3. Organizational Approach to Sustainability	10
B3.1 Guiding Principles.....	10
B3.2 Governance	11
B3.3 Stakeholder Engagement.....	12
B3.4 The Ambatovy Grievance Mechanism.....	13
B4. Commitments to External Initiatives.....	14
B4.1 Mandatory Compliance	14
B4.2 Voluntary Compliance	15
C. Ambatovy's Performance.....	16
C1. Environmental Performance.....	17
C1.1 Management Approach to Environmental Sustainability.....	17
C1.2 Biodiversity	18
C1.3 Water.....	24
C1.4 Emissions, Effluent and Waste.....	25
C1.5 Soil	28
C1.6 Energy.....	28
C1.7 Materials	29
C1.8 Transport.....	29
C2. Economic Performance.....	31
C2.1 Management Approach to Economic Sustainability.....	31
C2.2 Economic Performance.....	31
C2.3 Market Presence.....	33
C2.4 Indirect Economic Impacts	34
C3. Social Performance.....	37
C3.1 Management Approach to Society and Community Relations.....	37
C3.2 Resettlement.....	38
C3.3 Community Development Programs	40
C4. Labour Practices and Decent Work	43
C4.1 Management Approach to Labour Practices and Decent Work.....	43
C4.2 Employment	44
C4.3 Labour-Management Relations.....	45
C4.4 Occupational Health and Safety.....	46
C4.5 Training and Education.....	46
C4.6 Diversity and Equal Opportunity	47
C5. Human Rights	49
C5.1 Management Approach to Human Rights.....	49
C5.2 Investment and Procurement Practices.....	50
C5.3 Non-Discrimination.....	50
C5.4 Freedom of Association and Collective Bargaining.....	51
C5.5 Child Labour.....	51
C5.6 Security Practices.....	51
C6. Product Responsibility.....	53
C6.1 Management Approach to Product Responsibility	53
C6.2 Products and Services	53
C6.3 Customer Health and Safety	54
C6.4 Product and Service Labelling	54
C6.5 Marketing Communications.....	54
C6.6 Customer Privacy	54
Annex 1: Major Stakeholders by Group	55
Annex 2: Partnerships.....	56
Annex 3: Priority Species	57
Annex 4: GRI Indicator Reference Index.....	58
Annex 5: Acronyms.....	60

A. 2010 Sustainability Report



A1. Message from Our President



I am very pleased to introduce the first Sustainability Report for the Ambatovy Project. It reflects the commitment of all of the Ambatovy partners – Sherritt International Corporation, Sumitomo Corporation, Korea Resources Corporation and SNC-Lavalin Incorporated – to the principles of sustainable development and to reporting on our efforts and results in a transparent fashion.

The Ambatovy partners have never underestimated the challenges of constructing and operating a major industrial project in Madagascar. The country is blessed with natural resources and a rich environment with many unique species, but it is struggling with high rates of poverty and low socio-economic indicators. During the construction period we met with a number of challenges to sustainability, ranging from planned and unexpected environmental impacts to the concerns of our workforce and local communities. Our partners recognize that the development of Madagascar's natural resources will play a key role in improving the quality of life for the Malagasy people. Nevertheless, we as investors must be mindful of the need to respect the country's vital eco-system and the social licence to operate.

This report outlines the national and international standards to which Ambatovy is committed. Some contain mandatory requirements, while others are voluntary. Ambatovy prides itself on going beyond legal obligations in its social and environmental performance. We strive to be at the leading edge of the minerals sector in terms of sustainability and stakeholder engagement practices. This report describes in detail the efforts we are undertaking to verify that our performance meets our commitments.

Prior to construction, Ambatovy conducted a rigorous Environmental and Social Impact Assessment, which involved a comprehensive analysis of all of the Project's impacts. Ambatovy consulted a wide range of Malagasy stakeholders who provided valuable insights and guidance

on how negative impacts could be avoided, managed or mitigated and how positive impacts could be enhanced. We have since worked to create and implement a wide range of policies, programs and initiatives to support substantial job creation, capacity-building and training, in-country procurement, world-class environmental protection and biodiversity offsets programs.

In preparing this report, we have benefited from the G3 Guidelines of the Global Reporting Initiative. Since we are not currently in production, many of the G3 indicators do not yet apply. Nevertheless, we thought we should report on our progress thus far to give our stakeholders a timely assessment of our performance and to sensitize our own organization to the importance of sustainability reporting. As we transition from the construction to the operational phase in 2012, the substance of our reporting will change significantly. What will not change is our commitment to strong performance and transparency.

I would like to take this opportunity to thank all of our staff and stakeholders who have contributed so much to Ambatovy's achievements during the construction phase. I look forward to continuing success as we move into production.

I hope that all Ambatovy stakeholders will find this report useful and would be grateful to receive suggestions on how we might improve our sustainability performance and reporting.

Sincerely,

Elvin Saruk
President
Ambatovy

REPORT PROFILE

This is the first sustainability report for the Ambatovy Project (hereinafter “Ambatovy” or “the Project”). We have endeavoured to apply Global Reporting Initiative (GRI) G3 indicators and guidelines as much as possible. Since the Project was still in the construction phase in 2010, not all indicator data were readily available or applicable. In future reports, we will endeavour to increase our consistency with the GRI Reporting Framework. This report gives performance data for the year 2010, though some of the data are aggregates of the entire construction phase. When applicable, we have noted the period covered. It should also be noted that no major changes took place during the reporting period in terms of Project size (represented by estimated production capacity), governance structure or ownership.

For questions regarding this report, please contact the Communications Department: info@ambatovy.mg.

REPORT SCOPE AND BOUNDARY

Defining Report Content

In view of Ambatovy's commitment to the International Finance Corporation's (IFC) Performance Standards and the IFC's alignment with the GRI, we have chosen to be consistent with the GRI's Reporting Framework. Topics in this report are prioritized based on a combination of Ambatovy's specific sustainability initiatives and the GRI categorization scheme. Where possible, we integrated the Mining and Metals Sector Supplement¹ indicators.

We intend this report to be used as a reference for a variety of stakeholders, including employees, partner companies, financial institutions, non-governmental organizations (NGOs), the broader business community and the public. The stakeholder identification process is outlined in section B3.3.

Report Boundary

This report covers the Ambatovy Project and the departments and initiatives directly under its control. As a private entity that has only one operation, there are no other groups, subsidiaries, leased facilities, joint ventures, suppliers or other entities that fall under Ambatovy's jurisdiction or influence. The report has drawn the majority of data from the Operations Group, which will be responsible for running Ambatovy once in the operations phase. When possible, we have included Project-wide data that includes indicator information from the Engineering, Procurement and Construction Manager (EPCM).

Limitations

In the period under review, Ambatovy was in the construction phase and had not yet begun mining and refining operations. Construction has involved a wide range of suppliers, contractors and other stakeholders. It has been challenging to collect timely data that are complete in scope. Furthermore, we want to preserve the comparability of data for future reports, in which case construction-era information may be irrelevant. We have clarified in the text, when necessary, the scope of data application. One goal of this initial report is to lay the groundwork for data collection and annual sustainability reporting through the operational phase.

DATA MEASUREMENT TECHNIQUES

Each Ambatovy department uses its own data collection and measurement techniques geared to its particular objectives and requirements. For example, the rigorous population measurement techniques used in the Environmental and Social Impact Assessment and the Biodiversity Management Plan reflect best practices in those fields. The Finance Department, on the other hand, uses different tools to report on expenditures for the Project's wide range of contracts, procurement, supply chain orders and taxes. It is beyond the scope of this report to describe in detail all of the data measurement techniques, but Ambatovy would be pleased to respond to any requests for more information in this area.

GRI CONTENT INDEX

See Annex 4 for the GRI indicator reference table. For further information on the definitions, protocols or anything about the GRI system visit www.globalreporting.org where the complete G3 Framework and the Mining and Metals Sector Supplement are available.

¹ For more information see: www.globalreporting.org/ReportingFramework/SectorSupplements/MiningAndMetals.

B. Ambatovy's Approach to Sustainability



B1. Organizational Profile

The Ambatovy Project is a large-scale nickel and cobalt mining enterprise in Madagascar, comprised primarily of a lateritic mine near Moramanga, a processing facility in Toamasina and a 220 km pipeline that transports slurried ore from the mine to the plant site. The Project's main outputs are nickel briquettes and cobalt briquettes, which are shipped directly to customers. Operations are expected to begin in 2012.

MAP 1: PROJECT SITES IN MADAGASCAR



AMBATOVY AT A GLANCE

- **Project lifespan:** Approximately 30 years (expected mine reserve life of 29 years).
- **Annual design capacity:** 60,000 tonnes of refined nickel, 5,600 tonnes of refined cobalt and 210,000 tonnes of ammonium sulphate.
- **Number of employees:** There were more than 18,000 direct jobs created during the construction phase. Approximately 6,000 jobs are expected for operations (2,500 employees and 3,500 operations contractors). Our goal is that 85% of this workforce will be Malagasy nationals.
- **Expected total job creation during operations:** Approximately 15,000 direct, indirect and induced jobs, supporting 65,000 to 75,000 family members.
- **Net sales:** Since the Project has not yet begun operations, there are no net sales for this reporting period.
- **Capital investment costs:** Current forecast is US\$5.5 billion.²
- **Breakdown by country:** The entire Ambatovy Project is within the country of Madagascar.

² By the end of 2010, the investment cost was US\$4.8 billion. As of June 2011, the Project partners released updated financial and scheduling information, which brought the investment costs to US\$5.5 billion, excluding finance charges, working capital and foreign exchange. See www.sherritt.com for more information.

B1. Organizational Profile

Mine Site

The mine site is located near the town of Moramanga, 80 km east of Madagascar's capital, Antananarivo. The mine lies at the southern end of the residual eastern rainforest known as the Ankeniheny-Zahamena Corridor (*Couloir Ankeniheny-Zahamena, CAZ*). The near-primary forests of the mine area have undergone considerable human-induced pressures, including hunting and gathering, selective logging, slash-and-burn agriculture, uncontrolled fires and species collection for trade.

The ore body at the mine consists of two lateritic nickel deposits, the Ambatovy Deposit and the Analamay Deposit. The Ambatovy and Analamay Deposits constitute one of the world's biggest lateritic nickel reserves, which cover an area of about 1,300 ha with a depth of 20 to 100 m. Ore will be surface-mined and turned into slurry for transportation to the plant site via the pipeline.

Pipeline

Ambatovy's 220 km pipeline runs from the mine to the plant site in Toamasina. The route selected for the pipeline made some significant deviations to avoid sensitive environmental areas, cultural sites and local populations. It is buried for the majority of its route, avoiding critical wildlife habitats and residual forest fragments. In addition, workers from communities along the pipeline were hired to plant more than six and a half hectares of deep-rooting vegetation to stabilize steep slopes, prevent erosion and assist rehabilitation.

Plant Site

The plant site, which houses Ambatovy's headquarters, is located 11 km south of the Port of Toamasina within a coastal suburban landscape. It is an industrial complex covering more than 320 ha. Its facilities were designed and built and will operate in accordance with Malagasy regulations and IFC Performance Standards. The site's main components include a pressure acid leaching plant that separates the metal from the ore, a metals refinery to process and produce pure nickel and cobalt, and associated utility and ancillary plants to support both the acid leach plant and the refinery. Site facilities also include a medical clinic, training centre, several canteens, warehouses, workshops, fuel storage facilities, a laboratory, offices and living quarters for workers.

Tailings

Materials with no commercial value left over after mining, processing and refining are known as tailings. These are neutralized and pumped from the plant site through a 15 km pipeline to the tailings site – a secure, stabilized area where treated residue is discharged for permanent safekeeping. Excess water from the tailings is discharged into the ocean through a diffusor system to make localized impacts unlikely. A portion is reused at the plant site.



Port

Toamasina is situated on the east coast of Madagascar and is Madagascar's principal port. The port has two main piers and is protected from large cyclone waves by an isolated breakwater. Ambatovy has made a substantial investment in upgrading the port's facilities.

End Products

Ambatovy will use hydrometallurgical processing developed by Sherritt International Corporation ("Sherritt") to produce finished nickel, cobalt and ammonium sulphate. This industry-leading process is used in mining operations around the world. It generates 99.8% pure nickel and cobalt. Ammonium sulphate, a by-product of the process, will be produced in pellet form and sold as agricultural fertilizer.

Markets Served

Ambatovy will supply a global portfolio of nickel and cobalt customers located primarily in Asia, Europe and the United States. These customers will use Ambatovy products as inputs for the production of stainless steel, chemicals for the manufacture of battery products, special alloys for turbine components and other industrial products. We share with our customers the values of operating fairly, strategically and with integrity to enhance the value of our products and services.

B2. Key Impacts, Risks and Opportunities



B2.1 Impacts

This report gives us an opportunity to assess our impacts in a comprehensive manner. It is also a tool for monitoring and improving our performance. The scale of the Ambatovy Project is significant and it has a wide range of impacts. Many of the impacts are positive, but some are potentially negative. This requires the Project to develop and implement strategies to eliminate, minimize, manage, mitigate and/or compensate for negative impacts. For example, pipeline construction created a significant number of new jobs and income for local people. At the same time, it resulted in erosion into adjoining rice fields in some places. In cases where pipeline construction damaged rice fields, Ambatovy undertook rehabilitation activities and/or compensated the people affected. Relocation is another example of mixed impact. While resettlement of villages from the tailings and plant sites was unavoidable, the relocation provided the opportunity to build not only new homes, but also education and health facilities for families who had little access to such amenities in the past.

B2.2 Risks and Opportunities

As a private enterprise rather than a publicly traded corporation, the considerations of risk and opportunity for investment must be considered in the larger context of our partner companies. Each partner company assesses its own risks and opportunities based on a variety of factors.

As with other businesses operating in Madagascar, Ambatovy must assess and manage risks that fall in a range of categories, such as climate, legal and political instability.

For a detailed analysis of the risks referred to here, consult Sherritt International Corporation's Annual Information Form, www.sherritt.com/doc08/files/investor_relations/AIF2010.PDF.

PRIORITY AREAS OF RISK, OPPORTUNITY AND IMPACT

Detailed descriptions of sustainability-related risks, opportunities and our management approaches to them are given in each section of this report. The Project has also identified priority issues on which it has frequently engaged stakeholders through the construction phase. These include:

Environment

Biodiversity has been a key issue since the early planning stages of the Project. In addition, mitigating construction impacts through offsets and rehabilitation has been and will continue to be a focus for the Project. Forest management has been another area of impact that required our concerted attention.

Economic

Key financial performance to date has been related to construction and preparation for operations. Impacts and risks will evolve as the Project transitions into production and sales. Nevertheless, some key financial impacts of the Project are already visible in local wage payments as well as the Project's commitment to disclose all payments to the government in accordance with the Extractive Industries Transparency Initiative (EITI).³ During the construction period, Ambatovy faced labour-related issues that have affected the construction schedule. The Project is putting into place mitigation measures to address this type of risk, such as programs to assist demobilized construction workers while they transition to other income-generating opportunities.

³ In 2010, Madagascar was a candidate country with the EITI. Madagascar was suspended from the EITI in 2011. Detailed information may be found at eiti.org/madagascar.

B2. Key Impacts, Risks and Opportunities



Society

Minimizing and mitigating social impacts of construction have been a key focus. Compensation, both monetary and in-kind, has been provided in all Project areas and ranges from cash payments to crop replacement to resettlement.

Labour Practices and Decent Work

There are two significant impacts where the Project has seen the need for substantial attention: safety and building skills in the national workforce. Our key safety goal is to have zero lost time incidents. This and other related goals will only be reached with a safety-conscious workforce. More broadly, Ambatovy's sustainability is dependent on respect for our employees, developing their skills and creating a positive spirit of teamwork.

Human Rights

The Project has observed that it can have significant, positive impact on supply chain accountability, non-discrimination in labour relations and education on human rights, particularly as it relates to child protection.

Product Responsibility

As we are not yet in production, many of the areas of impact are not yet applicable, such as our response to customer satisfaction. We are putting in place quality assurance systems that will be applied to our products.

In addition to the critical issues identified above, we have prioritized engaging Project-Affected Persons (PAPs), an important group of stakeholders. This engagement has taken many forms, including the implementation of Ambatovy's grievance mechanism.

B3. Organizational Approach to Sustainability



Ambatovy's goal is to deliver outstanding safety, environmental, social and economic results. Protecting the interests of our employees, local communities, shareholders, partners and lenders is foremost in our efforts. We are also committed to respecting human rights and the cultures, customs and values of those affected by the Project's activities.

Our approach to governance is focused on ensuring transparency, sustainability and responsible operating practices. By nurturing public trust and participation and demonstrating good governance through our behaviour, Ambatovy strives to establish and maintain a firm foundation for long-term sustainability in Madagascar.

We are focused on good relationships and conduct systematic stakeholder engagement. We are also committed to participating in external governance initiatives, such as the EITI. Ambatovy is thus able to present stakeholders with a detailed picture of our activities, thereby contributing to an accurate understanding of the Project.

Ambatovy is committed as well to meeting or exceeding mandatory and voluntary standards, including national and international compliance requirements. In addition, we strive to implement international best practices. As we prepare to enter into the operations phase, Ambatovy is working toward improving internal coordination and synergies between departments to advance sustainability.

B3.1 Guiding Principles

AMBATOVY'S VISION

The Ambatovy partners have developed and will operate a sustainable nickel and cobalt mining and processing facility that significantly contributes to Madagascar, delivers outstanding safety, environmental and social records, and generates attractive economic returns.

AMBATOVY'S CORPORATE VALUES

Health and Safety

To create and maintain an organizational culture that holds health and safety as a top priority with a goal of zero harm to all personnel and host communities.

Environmental Responsibility

To establish mutually beneficial stakeholder partnerships that respect social and cultural values and contribute to sustainable economic development while avoiding, minimizing and mitigating environmental impact in areas of operation.

Stakeholder Alignment and Support

To recognize Ambatovy's stakeholders, communicate with

them proactively and effectively, and manage stakeholder-related risks as a means of cultivating a broad level of public support.

Good Corporate Governance

To foster credibility and trust by complying with principles developed to protect investors, employees and the general public.

Honesty and Integrity

To establish and maintain high ethical standards and transparency in all of Ambatovy's activities.

Teamwork

To achieve Ambatovy's vision through teamwork that is based on mutual respect, trust and constructive relationships.

Continuous Improvement

To strive for continuous improvement in performance.

Project Delivery

To complete construction in a safe, timely and financially sound manner, and ensure that Ambatovy meets production targets once operational.

Creation and Sustainability of Shareholder Value

To generate significant returns for shareholders.



B3.2 Governance

The Ambatovy Project is comprised of two companies: Ambatovy Minerals, S.A. (AMSA) and Dynatec Madagascar, S.A. (DMSA), which together are responsible for day-to-day operations. AMSA owns the mining permit and operates the mine site and pipeline. DMSA manages the plant site and all activities related to it. Both AMSA and DMSA are subject to the laws of Madagascar. Each has a board of directors. In practice, AMSA and DMSA act in parallel and under the purview of Ambatovy's Executive Committee, which consists of members from each of the four partners:

- ▶ Sherritt International Corporation (operator, publicly traded, TSX: S) 40% ownership
- ▶ Sumitomo Corporation (publicly traded, TSE: 8053) 27.5% ownership
- ▶ Korea Resources Corporation (state-run enterprise) 27.5% ownership
- ▶ SNC-Lavalin Inc. (Engineering, Procurement and Construction Management contractor, publicly traded, TSX: SNC) 5% ownership

The Project received a total of US\$2.1 billion in financing from a consortium of 14 lending institutions. This consortium includes government-sponsored export credit agencies, international development banks and commercial banks from around the world.

The Executive Committee, which is responsible for overseeing the direction and execution of all Ambatovy activities, is guided by a focus on sustainable value creation for all

stakeholders. It consists of six to ten individuals and meets on a quarterly basis. The members are a mix of executive and non-executive representatives of each partner company. They do not receive compensation for their duties as committee members. According to the Shareholders Agreement, the chairperson of the committee rotates on an annual basis among partners with an interest of 25% or greater. The chair and other members are not concurrently executives of Ambatovy, although they may be executives of a partner company. The Shareholders Agreement sets out policies and procedures for handling conflicts of interest.

Ambatovy's governance structure has built-in mechanisms to ensure accountability and performance evaluation. Under the terms of the lending agreement, Ambatovy is required to adhere to stringent national and international standards for environmental management, social engagement and other business practices. Ambatovy is audited several times a year by third-party experts who report to the lending institutions. Ambatovy is also subject to regular internal audits by Sherritt, the operating partner company. Finally, the Executive Committee has a number of sub-committees, some of which are focused on monitoring sustainability issues covered in this report. These sub-committees are:

- ▶ Audit
- ▶ Commodities
- ▶ Environment, Health and Safety, and Community
- ▶ Finance
- ▶ Marketing
- ▶ Technical



B3.3 Stakeholder Engagement

STAKEHOLDER IDENTIFICATION

Ambatovy identifies stakeholders based on multiple criteria, but the following three factors are the most significant:

Geographic Zone

Those stakeholders who are geographically close to the Project sites are often automatically affected and thereby become stakeholders. Examples include local businesses that see changing economic conditions as a result of the influx of workers and workers themselves who will see the job market change as a result of the Project.

Area of Expertise

Certain stakeholders have expertise in our areas of impact. For example, we have identified local, national and international NGOs, which can offer technical knowledge in areas, such as rice field rehabilitation, HIV/AIDS awareness and prevention, and water and sanitation projects.

Level of Impact

Certain stakeholders experience or exert significant impact as a result of construction and operations. These stakeholders are identified and prioritized based on the level of impact. An example is the resettled communities that were originally located on the tailings and plant sites. The impact of resettlement was high and these groups have therefore had a correspondingly high level of engagement.

STAKEHOLDER GROUPS

In 2010, Ambatovy conducted an inter-departmental stakeholder identification process. By the end of the year, the Project was conducting stakeholder mapping, an in-depth process that will continue into 2011. The resulting maps are issue-based, rather than Project-wide, so that we can be specific in identifying and engaging the right stakeholder at the right time. This exercise gives a clear picture of our stakeholders who are in a given region and which stakeholders should be engaged on a particular topic.

Stakeholders so far identified fall within seven groups:

- ▶ Business community
- ▶ Civil society
- ▶ Financial community
- ▶ Government and regulatory bodies
- ▶ Local communities
- ▶ The media
- ▶ Workforce and contractors

For a detailed explanation of each of these groups and how we engage them, refer to Annex 1: Major Stakeholders by Group.

APPROACH TO STAKEHOLDER ENGAGEMENT

Stakeholder engagement allows affected stakeholders the opportunity to review and influence Project activities, with a view to developing community support. Stakeholder engagement activities range from the provision of information to involvement in joint decision-making. Ambatovy is currently formulating a comprehensive Stakeholder Engagement Plan, modelled on the approach designed by the International Association for Public Participation.⁴ Our approach is founded on the recognition that the more a stakeholder is impacted by us, the greater our engagement with them should be.

Engagement Frequency

Our engagement is both pro-active and responsive. At a minimum, we initiate weekly, monthly or quarterly meetings with stakeholders who fall within our current scope of engagement. For example, we consult the *tangalamena* (local elders) on a quarterly basis and meet regularly with government ministries and agencies, such as the National Environment Office (*Office National pour l'Environnement, ONE*) and the Ministry of Mines. There is also ad hoc engagement, of which the HIV/AIDS awareness and prevention program is a good example. The Project engaged community and employee stakeholders through regular education sessions and also decided to do a mass campaign that coincided with World AIDS Day in December 2010.

⁴ Adapted from the IAP2 Public Participation Spectrum. For more information see www.iap2.org.



B3.4 The Ambatovy Grievance Mechanism

Ambatovy engages stakeholders on a range of subjects from safety to social and economic development to practical management of Project sites. Nevertheless, stakeholders can always raise their own concerns. Issues raised by stakeholders include:

- ▶ Allegations of harassment or improper behaviour
- ▶ Claims for property damage or financial loss
- ▶ Concerns linked to health, safety and the environment

A grievance management mechanism is in place for reporting, assessing and addressing issues raised by stakeholders. While many of these issues can be resolved through the regular consultation process, the grievance mechanism provides a channel for cases that should be addressed formally and/or confidentially with each step of the process documented. Implemented in March 2010, the mechanism has quickly become a vital tool for monitoring and mitigating concerns raised by local stakeholders.

Ambatovy defines a complaint as “a claim or grievance filed by an individual or a group within the communities affected by the operations of the company.” Any individual or group that feels negatively affected by the activities of Ambatovy can file a complaint and all complaints received from eligible parties will be accepted, analyzed and processed. To ensure that the mechanism is accessible, individuals may file grievances by phone, mail, email or in person at Ambatovy offices in Antananarivo, Moramanga or Toamasina. They may also file a grievance with any Ambatovy field worker or at the office of a local authority.⁵

All grievances are treated in a three-step process:

- ▶ The stakeholder receives an acknowledgement of the grievance and an initial response.
- ▶ Ambatovy conducts an investigation as required.
- ▶ Ambatovy provides the results of the investigation to the stakeholder with a proposed course of action to resolve the matter. If the stakeholder does not accept the proposed course of action, Ambatovy engages in further dialogue with the stakeholder until there is a mutually acceptable outcome.

The Project monitors the mechanism closely and prepares regular reports to management and the Executive Committee on the number of grievances and the status of the Project's responses.

Our grievance mechanism has been a critical way of tracking these major issues. The most significant topic raised through the mechanism has been the compensation and restoration process for rice fields affected by pipeline construction. Ambatovy has responded by investigating the cases and explaining the process for determining the compensation and restoration method. The Project is planning an external audit to assess the adequacy of the current compensation process.

⁵ This authority is generally the *Fokontany*, which are the Malagasy government's liaison and administrative offices at the village or neighbourhood level.

B4. Commitments to External Initiatives



Ambatovy strives to maintain the highest ethical standards, respect local culture and traditions, and comply with the laws and regulations of Madagascar. We endeavour to meet and, when possible, exceed our obligatory and voluntary compliance requirements under our agreements with our lenders and the Government of Madagascar.

B4.1 Mandatory Compliance

Investment and Environment Compatibility Act (*Mise en Compatibilité des Investissements avec l'Environnement, MECIE*)

A national decree on environmental compliance for investment projects in Madagascar, MECIE describes the obligation of mining projects to conduct an environmental and social impact assessment and to hold public hearings. It also describes the process and conditions for obtaining the necessary environmental permits and establishes a code of conduct and penalties for offenders. Ambatovy received its environmental permit from the Malagasy authorities in December 2006, six months after filing its Environmental and Social Impact Assessment (ESIA). Following the ESIA, the Project developed an Environmental Management and Social Development Plan (*Plan de Gestion Environnemental et Développement Social, PGEDS*), which is made up of three key components:

- ▶ The Environmental Management Plan provides the framework that ensures that all issues identified in the Environmental and Social Impact Assessment are addressed through appropriate mitigation and monitoring.
- ▶ The Social Management Plan guides Ambatovy's relationship with local communities.
- ▶ The Health and Safety Management Plan defines the conditions and manner in which work must be carried out so that potential risks to the health and welfare of Ambatovy personnel are minimized.

The ONE monitors Ambatovy's performance under the PGEDS.

International Finance Corporation (IFC) Performance Standards

The IFC is a member of the World Bank Group established to foster sustainable economic growth in developing countries by financing private sector investment, mobilizing capital in the international financial markets and providing advisory services to businesses and governments. Our agreement for US\$2.1 billion in project financing requires that we adhere to the IFC's Performance Standards. The lenders are represented by a group of independent experts who audit Ambatovy's compliance each quarter.

Large Mining Investment Act (*Loi sur les Grands Investissements Miniers, LGIM*)

Madagascar's LGIM established the legal framework for developing and operating large-scale mining projects in the country. The LGIM was developed with the support and assistance of the World Bank. LGIM certification for a project ensures that the terms of its mining permit will not be changed after it has been granted and provides investment incentives. Ambatovy was certified under the LGIM in 2007.

Equator Principles

The Equator Principles are voluntary standards to which signatory banking institutions commit. Equator Principles Financial Institutions (EQFIs) pledge to take into account social and environmental criteria in the large-scale projects they finance and not to finance loans where the borrowers are not willing or able to comply with these criteria. Presented in June 2003, these principles are consistent with the standards promoted by the World Bank/IFC and form the basis of responsible financing. The Equator Principles require an evaluation of environmental impacts of high-risk projects and, in certain cases, a management plan that addresses socio-economic impact, environmental protection, human rights and labour standards among other issues. Some of Ambatovy's financing institutions are EQFIs and, as a result, our financing agreements require that we uphold these principles.



B4.2 Voluntary Compliance

With a view to achieving superior safety, environmental and social results, Ambatovy is committed to the following voluntary measures that go beyond its legal obligations:

Business and Biodiversity Offsets Program (BBOP)

BBOP is a collaboration of some 50 companies, financial institutions, governments and civil society organizations. The members aim to develop and test best practices on conservation and biodiversity offsets. In 2006, Ambatovy became a BBOP pilot project, refining its initial offsets vision and design according to the guidelines provided by the BBOP Secretariat and Advisory Committee.

Extractive Industries Transparency Initiative (EITI)⁶

Madagascar was accepted as an EITI candidate country in February 2008. Ambatovy has been a strong supporter of the EITI in Madagascar and an active member of the Multi-Stakeholder Group, comprised of representatives from government, companies and civil society. Progress toward compliant country status was slowed by political turmoil in the country, but the Multi-Stakeholder Group was able to issue a ground-breaking pilot report in March 2010. At the same time, an updated work plan was agreed upon and a new national coordinator was appointed in November 2010. Ambatovy will continue to work closely with other stakeholders to promote the EITI in Madagascar, given its vital importance in ensuring full transparency with respect to taxes and other revenues derived from the extractive sector.

International Council on Mining and Metals (ICMM) Principles

The ICMM is an organization established in 2001 to act as a catalyst for performance improvement in the mining and metals industry. The ICMM brings together 18 mining and metals companies as well as 30 national and regional mining associations and global commodity associations. Ambatovy endeavours to apply the relevant ICMM principles and has integrated them, where applicable, into our planning and strategies.

International Standards: ISO 9001 and OHSAS 18001

Ambatovy is pursuing certification for its products under ISO 9001, the internationally recognized quality standard, which is required for products sold on the London Metal Exchange. We are also pursuing certification by the Occupational Health and Safety Assessment Series (OHSAS) 18001 for our health and safety management system. OHSAS is the highest international standard for occupational health and safety management.

Other Corporate Social Responsibility (CSR) Tools

Ambatovy invests in evolving trends and practices in good corporate social responsibility. Corporate-community relations were a major focus in 2010 and we have integrated new approaches into our external relations strategies. An important tool was *Getting It Right: Making Corporate-Community Relations Work* by Luc Zandvliet and Mary B. Anderson, which provided useful guidance for our engagement strategies and external relations planning.

⁶ In 2010, Madagascar was a candidate country with the EITI. Madagascar was suspended from the EITI in 2011. Detailed information may be found at eiti.org/madagascar.

C. Ambatovy's Performance



ENVIRONMENTAL TARGETS

Targets for Environmental Performance in 2010

Put in place an adaptive environmental management system that ensures compliance throughout construction, operation and closure.


Implement a best-practice mitigation hierarchy aiming at avoiding, minimizing, mitigating and offsetting impacts.


Manage environmental risks by enhancing stakeholders' involvement through public consultations to maintain project transparency and receive timely feedback on emerging environmental issues.


Implement a Biodiversity Management Plan that will achieve no net loss and preferably a net gain in biodiversity.

Results and Next Steps

 We have comprehensive management plans for each of the major areas of environmental impact.

 During 2010 construction activities, some unexpected impacts occurred, such as rice field inundation. We have been working to ensure that there are remediation and stronger prevention measures in place.

 We have regular communication with environmental stakeholders, such as the Malagasy regulator and a range of NGOs and experts, who advise us on critical areas of impact.

 We are still on target with an offset six times the area of our mine footprint. However, in 2010 there was minor accidental intrusion into areas set aside for conservation. 2011 will be a pivotal year for our biodiversity team as we strengthen practices and programs.

 Major challenges encountered  Challenges en route to resolution  Good progress made toward goal

C1.1 Management Approach to Environmental Sustainability

We recognize that we are operating an industrial project in a country known for its biodiversity. Madagascar is also one of the world's poorest countries, whose people are highly dependent on natural resources for their livelihood. These factors combine to create a challenging context for a large mining operation. To meet these challenges, Ambatovy has developed interrelated environmental and social policies. We will leave a footprint, but we will strive to leave as small a footprint as possible on Madagascar's forest, soil, air and water systems. Ambatovy's key environmental goal is that all its activities, taken collectively, should cause no net loss to Madagascar's natural heritage and, preferably, result in a net gain.

Ambatovy is using two strategies. The first is to mitigate impacts with responsible engineering and technology. The second is to offset residual impacts with conservation efforts. We have produced management plans relating to water, air, noise, soil, waste, flora, fauna and aquatic resources. These plans will have far-reaching effects as we work toward the preservation of Madagascar's environment and the advancement of scientific knowledge and local capacity. To deliver outstanding environmental and conservation results, we have committed to:

- ▶ Implement adaptive, state-of-the-art environmental management plans to ensure compliance with national and international standards throughout construction, operations and closure.
- ▶ Minimize all residual impacts through the implementation of a best-practice mitigation hierarchy and offsets program.

- ▶ Manage environmental risks by enhancing stakeholder involvement through transparency, continuous consultation and timely feedback with the public on emerging environmental issues.
- ▶ Track operational performance and emissions to ensure that compliance levels are met and that operational control systems are functioning optimally.

Ambatovy's Environmental Management Plan (EMP) provides the framework to ensure that all issues identified in the ESIA are addressed through appropriate mitigation and follow-up. Mitigation measures, together with strict monitoring systems, are built into the design of our operations and ensure compliance with established criteria. Water, air, noise, waste, soil quality and biodiversity are monitored on an ongoing basis. Land mined by Ambatovy is progressively reclaimed and restored for future use. Additionally, a comprehensive biological offsets program is being implemented that will achieve positive and measurable conservation outcomes.

Ambatovy works in close collaboration with the ONE, which must approve all environmental plans before implementation. The ONE has a mandate to review Ambatovy's performance twice a year through intensive field verification, make recommendations for improved compliance and impose sanctions if warranted. To date, the ONE has given the Project two warning notices with recommendations relating to pipeline rehabilitation, both of which have been fully discharged through corrective actions.



C1.2 Biodiversity

Biodiversity management at Ambatovy is founded on a combination of internal policy, obligations under our environmental permit and our commitments to external standards. The Biodiversity Management Plan (BMP), an integral part of the EMP, encompasses scientific conservation actions for targeted flora, fauna and aquatic resources. These programs use an adaptive management approach, which is an analytical process for improving management policies and practices by learning from the outcomes of operational programs.

The following key objectives are the foundation of Ambatovy's BMP:

- ▶ No net loss of biodiversity and preferably a net gain.
- ▶ No loss of species and no net reduction in the population of any endangered species.
- ▶ Minimized impacts on flora, fauna and aquatic resources.
- ▶ Increased conservation of rare habitats.
- ▶ Priority habitat viability assured by maintaining or increasing ecosystem connectivity.
- ▶ Close links between Ambatovy's biodiversity activities and regional initiatives.

Each part of the Project operates within a unique ecosystem with its own biological characteristics. Priorities for mitigation and monitoring are broken down by site and laid out in Ambatovy's BMP. This includes, where appropriate, listings of species of concern (SOC). Priorities were identified based on the area and rarity of natural habitats that would be directly affected by the Project. Extensive pre-construction studies on the flora, fauna and aquatic habitats of each area were conducted at all Project sites as well as the Torotorofotsy Wetlands.

HIGH-PRIORITY AREA	CONCERN
Mine site	Flora and fauna of the "azonal" (atypical) forest and shrub habitats. Aquatic habitats of the less disturbed streams and ephemeral ponds.
Torotorofotsy Wetlands	Although not directly impacted to a significant degree by the Project, this area near the mine site is a BMP high priority site based on its conservation status and IFC requirements to support conservation of adjacent protected areas.
Pipeline	Flora and fauna of the primary forest near the mine site and within the Ankeniheny-Zahamena Corridor (CAZ). Endemic aquatic species of sensitive water courses traversed by the pipeline.
Ocean outfall	Marine habitats, including coral reefs.

Priorities for species of concern have been set according to:

- ▶ Endemism (local, regional, national), especially locally endemic species with restricted range.
- ▶ International Union for Conservation of Nature (IUCN) threatened species status, notably endangered (EN) and critically endangered (CR) species.
- ▶ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) species status.
- ▶ Additional information from Malagasy specialists on the status of species.

A Scientific Consultative Committee on biodiversity was established in 2009 and reflects Ambatovy's commitment to environmental management and transparency. The committee is made up of 14 national and international independent scientists renowned for their expertise in biodiversity, conservation and environmental management. The Scientific Consultative Committee convenes every six to twelve months to conduct an external evaluation of Ambatovy's implementation of the BMP and make recommendations for improved biodiversity management.



A PIONEERING BIODIVERSITY OFFSETS PROGRAM

Ambatovy's biodiversity offsets program has been designed and implemented as a pilot project within the framework of the Business and Biodiversity Offsets Program (BBOP), a voluntary partnership between companies, financial institutions, governments and civil society organizations. BBOP seeks to develop an international framework for the design and implementation of biodiversity offsets, particularly for use in developing countries lacking their own offsets policies and legislation. Other BBOP pilot projects are underway in Africa, Asia, Latin America, the Middle East and North America, and cover a range of sectors including oil and gas, mining, tourism and real estate.

Ambatovy's offsets activities are designed to adhere to the BBOP principles and guidelines and produce quantifiable biodiversity and socio-economic benefits. Calculations are used to determine residual losses in biodiversity due to Ambatovy's activities and the gains achieved by the offsets. Socio-economic assessments are also made to determine the impact of offsetting on local populations and the scale of compensatory measures that may be required. Ambatovy's offsets program is monitored in consultation with BBOP through annual assurance framework meetings and with the support and guidance of experts associated with the program.

BBOP has published a set of ten principles on biodiversity offsets supported by the 50 member organizations of the BBOP Advisory Group. These principles are accompanied by interim guidance and resource papers on the design and implementation of offsets. These include case studies from the BBOP pilots, of which the Ambatovy Project is one of the first. The full case study is available at bbop.forest-trends.org/guidelines/low_ambatovy-case-study.pdf.

BIODIVERSITY STRATEGIES

We have taken a multifaceted approach to biodiversity, utilizing six main strategies:

Mitigation

Ambatovy is undertaking biodiversity management in a structured manner that follows the mitigation hierarchy adopted by BBOP across all aspects of biodiversity.

Avoidance

Where possible, the Project will avoid areas particularly sensitive to impact from our activities. Examples of this include the diversion of the pipeline route and the creation of barriers to protect conservation areas from construction activities.

Minimization

Impacts are minimized wherever possible through optimized planning. For example, the mine footprint corresponds precisely to the exploitable ore body and involves minimal excess forest clearance.

Rescue (Relocation and Translocation)

Ambatovy developed a substantial impact mitigation program for the construction phase that includes:

- ▶ Repetition of full biological surveys prior to each clearing to develop taxa-specific mitigation measures such as: fitting lemurs with radio collars to monitor their ability to migrate away from impact areas and relocate to refuge areas; identifying plant species of concern and locating them off-site to avoid the risk of extinction; and salvaging plants to nurseries and/or propagating them.
- ▶ Directional and slow-paced forest clearance, which allows mobile fauna to migrate away from impacted areas to adjacent refuge areas. For the less mobile fauna, manual salvaging is used to relocate animals into safe conservation zones. A crew of more than 80 expertly trained technicians identifies and salvages all small mammals, stranded lemurs, certain birds and reptiles. Experts, primarily Malagasy biologists from various universities and non-governmental

organizations, supervise the salvaging process. Relocated animals are subsequently monitored in the refuge areas.

- ▶ For the aquatics program, large retention dams are used to prevent sediments from impacting downstream watersheds and the introduction of exotic species.

Repair, Reinstate and Restore

Ambatovy will conduct progressive footprint rehabilitation consistent with the historical ecology of the landscape.

Offset and Compensate

Ambatovy's multifaceted biodiversity offsets program comprises a series of on-site and off-site conservation areas considered to be biodiversity offsets, which include:

- ▶ **On-Site Azonal Forest Habitat:** Two areas of the azonal forest habitat growing over the ore body have been set aside, despite the valuable nickel ore lying beneath them, to preserve examples of this habitat. The azonal forest surface area is equal to 212.33 ha (26.4% of the total prime quality habitat) and will not be mined. During the Environmental and Social Impact Assessment, the azonal forest habitats were recognized as a rare habitat type compared to the more typical zonal forests of the Eastern Forest Corridor.
- ▶ **Mine Area Conservation Forest:** Ambatovy has designated 4,900 ha as "buffer zone" around the mine footprint, destined to be long-term conservation and multiple-use forest areas. This area has already faced human-induced pressure. Our aim is to ensure local community access to medicinal plants and other sources of livelihood through the promotion of sustainable forest use. The azonal conservation zones mentioned above are adjacent to these areas. These efforts will conserve rare habitats and their fauna and flora and offset the Project's impact on the mine footprint forest. The majority of this forest lies within a land lease of 7,596 ha with the Malagasy government.



- ▶ **Analamay-Mantadia Forest Corridor:** Working with environmental stakeholders, including such leading international organizations as Conservation International and regional and local authorities, Ambatovy seeks to maintain as protected rainforests the corridor between the mine area and the nearby Mantadia National Park and Ankeniheny-Zahamena Forest Corridor. The objective is to ensure ecological connectivity between these key areas and to avoid isolation of the mine conservation area. The corridor concept has been integral to the Project's species management strategies, particularly for lemurs.
- ▶ **Torotorofotsy Ramsar Wetlands:** The Torotorofotsy Wetlands lie 10 km to the east of the mine site and covers 9,776 ha. In 2005, Torotorofotsy was classified as a wetland of international importance under the Ramsar Convention on Wetlands. Given Torotorofotsy's proximity to the mine, Ambatovy has been working with the Government of Madagascar and local NGOs to support the design and implementation of a comprehensive Wetlands Management Plan. This plan will ensure wise use of the area and conservation of endemic fish, aquatic systems and other valuable ecosystems. Ambatovy is currently undertaking hydrological studies to assist with management and restoration of the wetlands. The site is also part of Ambatovy's offsets program. Ambatovy-led surveys indicate that the ecological integrity of the overall area has been severely degraded. True gains to biodiversity will be quantified based on analysis of survey results. Inventories from a local partner NGO (*Association Mitsinjo*) have confirmed the presence of a population of the Greater Bamboo Lemur, *Prolemur simus* (CR), utilizing the edge habitat of these unique wetlands and toward Mantadia National Park. These findings have increased the known range and population size for this critically endangered species.
- ▶ **The Ankerana Offset Area:** The Ankerana offset site, equidistant between the mine and Toamasina, is a large, mountainous dome covered with primary forest, encroached upon by slash-and-burn agriculture in surrounding valleys where frontier dwellings exist.

The Ankerana offset site has a total surface area of approximately 6,800 ha. The site is a recognized sub-unit of the CAZ. Ambatovy has committed to ensuring the conservation of the Ankerana site under the terms of the Ambatovy BMP. Ambatovy is currently supporting management of the site and working with the Ministry of Environment and Forests, which has legal responsibility for the management of the CAZ. A long-term strategy for management of Ankerana is under development.

ANTICIPATED IMPACTS

The main anticipated residual impacts on biodiversity caused by the Project will occur at the mine site due to forest clearance (approximately 1,800 ha) and along a two kilometre strip of forest at the initial portion of the pipeline. Stringent impact avoidance and minimization strategies were developed in the design phase of the Project. Before protection by the Project, much of the forest around the mine was threatened by clearance for agriculture, illicit timber harvesting and hunting. These activities are now effectively controlled through cooperation between Ambatovy, local communities and the Ministry of Environment and Forests.

TABLE 1: NET IMPACT OF MINING ACTIVITIES ON FORESTED AREAS

FOREST/LAND AREAS	LAND TO BE IMPACTED (ha)	LAND TO BE RECLAIMED (ha)	LAND TO BE CONSERVED (ha)
Mine footprint	1,800	1,800	0
Slurry pipeline (estimated)	600	500	0
Roads/Infrastructure	100	0	0
Mine conservation forest	0	0	4,900
On-site offsets	0	0	300
Ankerana offset (BBOP area)	0	0	6,800
Subtotals	2,500	2,400	12,000
Net gain			11,900

The plant site and tailings are located on coastal industrial land or nearby scrubland. The plant is expected to occupy more than 320 ha, while the tailings area is expected to be approximately 750 ha. Although there is not the same heightened concern for unique habitat in these locations as in the highland forest areas, proper care is still taken for responsible use and later reclamation of land.

C1. Environmental Performance

The 6,800 ha⁷ of the Ankerana forest, plus the mine conservation forest and offset sites, provide a total combined area of 12,000 ha of newly protected land (see table 1). This area is over six times the mine footprint and five times the approximately 2,400 ha of total forest land that will be reclaimed after mining operations are complete. The small amount of land that is not reclaimed represents the area occupied by legacy infrastructure, such as roads that will remain for the beneficial use of communities. Ultimately, a net gain of 11,900 ha of conserved land is anticipated, most of which will be forested.

As the Project develops, the ESIA is being revisited to ensure that no residual impact on biodiversity is being neglected. Any further residual impacts identified will be accounted for in the biodiversity offsets calculation.

MONITORING

Biodiversity monitoring programs have been established to deal with uncertainties regarding forecasted Project impacts. Thus, the Environmental Management System (EMS) includes monitoring to ensure that impacts are in accordance with projections. However, one of the objectives of an EMS is to promote continuous improvement and incorporate the lessons of adaptive management as new information becomes available. For each program, detailed monitoring programs are developed, which include key monitoring indicators and regular intervals for conducting studies.

PRIORITY SPECIES

Priority species are identified based on two factors: those species that are considered endangered and those that are believed to be endemic only to the mine region. As a result of their rarity, these species are given special attention in our biodiversity management actions. For detailed information, see Annex 3: Priority Species.

REHABILITATION

Pipeline Right-of-Way (ROW) Reforestation Program

The pipeline avoids native forests wherever possible and only passes through near-primary zonal forest within the first two kilometres of the mine site. This loss of zonal forest will be offset in the near future as the forest is rehabilitated and residual impacts are accounted for in the biodiversity offsets program. After construction, forest connectivity in specific areas will be re-established through targeted reforestation activities aimed at linking and integrating the remaining forests into a fully functioning ecosystem.

Mine Footprint Rehabilitation

Ambatovy will restore a multifunctional forest on the mine's footprint through progressive restoration. The rehabilitation program has been designed in close consultation with local stakeholders. A ten-year rehabilitation plan is currently being implemented. An industrial-scale production nursery



REHABILITATING A CRITICAL PIECE OF THE PIPELINE

As a pilot project in 2010, the Environment Department at the mine site oversaw the rehabilitation of the first two kilometres of the pipeline, which covers a sensitive transitional zone between the mine area and the pipeline route. With careful planning and technical preparation on species, the Environment Department oversaw local workers who replanted four hectares surrounding the first section of the pipeline.

One of the critical elements of this effort was the attention paid to endemic species, particularly species of concern (SOC). Mitigation efforts were applied to ensure that the endemic and SOC plants were preserved and reintroduced into the rehabilitation zone. This included transplantation, cryopreservation, micropropagation, and collecting and germinating native seeds. By implementing "stratified plantation," a natural bridge was created between forest zones that the mine area boundary straddles. Over a period of three months, the team rehabilitated this area with 16,500 plants from 34 different species.

is under construction and will be operated as part of this plan, complemented by community nurseries. A research nursery, devoted to experimenting with a variety of species and cultivation methods, will help identify optimal conditions for successful rehabilitation. Community and factory-scale nurseries will be constructed and operated as part of this plan in 2011. The rehabilitation program has been aligned with adjacent land use (i.e. the mine forest conservation zone). An established, integrated management structure will be in place by the time of mine closure.

⁷ The area of the Ankerana offset was stated as 11,600 ha in the BBOP case study and other publications. A review conducted in 2010 determined that this figure was too high, possibly due to a cartographic error, and that the true area of remaining forest is 6,800 ha. Nevertheless, the Project will achieve a net gain of conserved land.

BIODIVERSITY MANAGEMENT PROGRAMS

Lemur Management Program

The goal of the lemur management program is to maintain population viability in the mine area. To monitor the effectiveness of its environmental management practices, Ambatovy has been employing the capture, mark and radio-tracking technique. Since 2007, a total of 140 individuals belonging to seven species (*Lepilemur mustelinus*, *Avahi laniger*, *Eulemur fulvus*, *Indri indri*, *Propithecus diadema*, *Eulemur rubriventer* and *Hapalemur griseus*) living in and around the cleared forest and refuge areas have been equipped with radio collars. This has enabled technicians to follow and monitor 181 individual lemurs (carriers of radio collars and members of the groups without collars) from 48 groups. This radio-tracking methodology enables the monitoring of lemur movement and behaviour and determines whether they are able to adapt to a new home range over time. Tree-top bridges were installed to maintain habitat connectivity, allowing lemurs to cross trails and roads cut by mining activity. A community-level assessment also helped evaluate local hunting pressure on wildlife and design suitable refuge areas.

Since 2009, a total of 35 newborn lemurs have been observed within Ambatovy's conservation areas: six *Indri indri*, 14 *Propithecus diadema*, 11 *Avahi laniger*, and four *Eulemur fulvus*. Of these newborn lemurs, 16 came from groups that were displaced to special refuge areas. The relatively high number of recent offspring indicates that these lemurs have successfully adapted to their new environment. Ambatovy is currently developing biomedical health monitoring systems to help ensure the long-term survival of lemur populations affected by the Project.

Actions in the lemur management program are presented in Ambatovy's Biodiversity Action Plan construction phase (January 2007) and have been enhanced through the lessons learned from the early forest clearing actions. The need for surveys of the refuge forest was also recognized to help determine the effect of displaced lemur populations on the refuge forest recipient populations ("wave effect"). These surveys will be carried out for the Ambatovy central forests and subsequent clearings.

Thirty-three species of mammals (other than lemurs) are also monitored by the Project, including endemic rodent and carnivore species. A conservation strategy for the endangered Northern Shrew Tenrec, *Microgale jobihely*, will also be developed.



LEMUR CROSSING!

During the environmental impact assessment, 11 lemur species were found in the area of the mine site and the first 33 km of the pipeline right-of-way (ROW). Ambatovy, mindful of this sensitive location, looked for innovative solutions to mitigate the impacts of habitat fragmentation. Taking note of successful bridges to help tree-dwelling mammals cross roads in Australia, Ambatovy built bridges at key locations around the mine and along the pipeline. Two experimental designs were the result of collaboration among local lemur experts, structural engineers and the Project's Environment Department. Both structures took into account the road size, the traffic type and how the lemurs moved – by clinging, leaping or running on all fours. These bridges were a critical component for lemur population preservation and now allow safe crossing away from vehicle traffic and predators.

The pipeline ROW and mine road crossing points were determined by lemur experts through species observations (crossings and crossing attempts). Identified crossing locations were mapped and it is important to note that lemurs were observed crossing roads at ground level, indicating that some species will not be restricted to using the structures but could still benefit by their presence. Conversely, certain species such as the *Avahi laniger* appear totally unable (or unwilling) to move around on the ground.

The pipeline installations consist of simple wooden bridge-like structures 2.5 m above the road, allowing the passage of off-road vehicles. The mine road structures consist of a more complex suspension bridge at a minimum height of 4.5 m to allow large vehicles to pass. The lemur bridges will be a critical link until rehabilitated forest along the roads allows for natural crossing points. Several crossing structures will be equipped with digital cameras (infrared and motion detectors) to log the frequency of species crossing.

These lemur bridges have been successful. When first implemented in 2009, four species were observed using the seven bridges built in the mine area and along the pipeline. By the following year, another two species had been added to the club. The Project's team noted a marked decrease in the number of lemurs crossing the road on the ground.



Amphibian and Reptile Management Program

The goal of the amphibian and reptile program is to ensure the continued viability of populations of amphibian and reptile species affected by the Project. The main activities include carrying out pre-clearance species inventories and salvaging live animals to conservation forest refuge areas. Between 2007 and 2010, the program relocated 3,906 amphibians (69 species) and 10,585 reptiles (55 species). This program will continue until forest clearing operations have been completed.

In addition, a specific conservation program has been developed for the Golden Mantella Frog, *Mantella aurantiaca*, a critically endangered frog and a flagship species for Ambatovy's conservation efforts. Ambatovy has supported regional surveys to identify the distribution of the frog and its critical habitats (in particular, breeding ponds and surrounding forest slopes) and is working with experts to identify the steps required to maintain viable populations in the mine area. Other species which may require similar conservation initiatives include the gecko species *Phelsuma pronki*, which has recently been listed as critically endangered by IUCN, and a new arboreal frog *Platypelys* species, once it has been taxonomically identified.

Aquatics Management Program

Sixty-five percent of Madagascar's native fishes are endemic; approximately 73% are threatened with extinction. This leaves Madagascar's freshwater fish as the most threatened vertebrate taxa on the island. Deforestation, over-fishing and the introduction of exotic species constitute the main threats driving the demise of Madagascar's fish. Prior to any construction activities, these threats had already seriously affected most streams associated with the mine area.

The Ambatovy mine area is composed of two main river systems. Both of these river systems have associated with them several fish taxa, which are considered evolutionary significant units, meaning they are taxonomically important. The Aquatic Management Plan is therefore a very important tool in ensuring Ambatovy's policy of no loss of species. Pre-construction surveys were conducted on the habitat of targeted fish species and aquatic systems in water courses located at the mine site and along the route of the pipeline. These surveys helped determine baseline conditions and outline environmental procedures for construction. To minimize the impacts on aquatic systems, stringent mitigation measures were imposed on contractors during construction. Endemic fish and their habitats continue to be monitored regularly in the mine area and in water courses crossing the sections of the pipeline where endemic fish species still occur.

Endemic fish species tend to be located in streams draining from catchments with intact forest and where barriers such as waterfalls prevent invasion by exotic species. Isolation between catchments results in speciation at the catchment level. In the case of Ambatovy, four previously undescribed species occur in the catchments draining from the mine – two of the genus *Ratsirakia* and two of the genus *Rheocles*. Although as yet unrecognised by the IUCN (publications are in preparation), Ambatovy has treated these fish species as if they were critically endangered. The isolated and fragmented distribution of these endemic fish makes them especially vulnerable to local extinction, requiring careful conservation of even the smallest streams. Ambatovy's fish management program endeavours to maintain the viability of these populations in streams affected by the mine and pipeline using best available practices.

Flora Management Program

Based on an extensive botanical inventory, Ambatovy, with the help of the Missouri Botanical Garden, has identified plant species known to exist only within the mine footprint and one or two other sites in Madagascar. These plants are categorized as SOCs.

For these SOCs, as a precautionary measure, Ambatovy's comprehensive conservation program includes whole-plant salvaging, seed collection, plant propagation and the development of living collections for progressive rehabilitation of the mine footprint. In parallel with off-site conservation efforts, Ambatovy supports searches for viable populations of SOCs in the mine conservation forests. This search effort is ongoing and has resulted in the progressive reduction in the number of species requiring off-site conservation. The number of SOCs still requiring special salvaging has been reduced to eight species from 173 and is expected to reach zero as off-site surveys continue.

Forest Habitat Management and Monitoring Program

The Project has a specific forest habitat management and monitoring program. This program oversees all forest management activities in the mine lease area, known as mine conservation forests, and other offsets as well as our active support role in the management of the Torotorofotsy Wetlands. Conservation of these areas is underpinned by the land lease awarded by the Government of Madagascar, which grants Ambatovy the mandate to manage these forests effectively.

C1. Environmental Performance

C1.3 Water

The mine site extends into seven different watersheds. The mine's operational plan is designed to ensure that runoff from mining excavations in each of the watershed areas flows into a sediment retention basin. All water, both surface water and groundwater, will be directed to one of the retention basins.

At the plant site, the principal water source is the water recovered from dewatering of the ore slurry, which will be augmented with water from the Ivondro River. A portion of the effluent discharge from the tailings facility will be utilized in the process to minimize river water usage. The use of processed water at the plant is primarily for cooling water and boiler feed water.

Water management complies with applicable criteria including Malagasy regulations, World Bank guidelines and recommendations from the World Health Organization (WHO) for the supply of drinking water and disposal of wastewater. Water use is controlled to minimize extraction and discharge. Use of a pipeline to transport ore to the plant site allows for balanced extraction from the Mangoro and Ivondro Rivers. Following its use, water is treated in accordance with approved operating permits, where applicable, before it is returned to the environment.

Ambatovy's Water Management Plan is a living document that can be adapted according to the Project's progress and in response to data analysis. Key components of the Water Management Plan are:

- ▶ To ensure that works and operations do not adversely affect surface and groundwater quality, and that any wastewater complies with environmental standards.
- ▶ To evaluate the flow rate and quality of surface and groundwater downstream of mining activities to detect any abnormalities, and to record all information in the central hydrological database.
- ▶ To ensure that the Torotorofotsy Wetlands is not adversely affected by the mine's activities.
- ▶ To monitor water flow and quality and implement the construction of retention basins to ensure compliance with environmental standards in force.
- ▶ To communicate with downstream users to ensure their water needs are met, and to propose solutions if problems arise.
- ▶ To ensure that water supply and sewage treatment meet the criteria of applicable water quality regulations and guidelines.
- ▶ To ensure that structures controlling erosion and sedimentation are managed in accordance with the recommendations of the Soil Management Plan.

Ambatovy has a permit to withdraw up to 2,000 m³/hr of water from the Mangoro River. Water is mixed with the ore to

create slurry that will be transported down the pipeline. The actual water consumption at full production is estimated to be between 1,400 and 1,800 m³/hr, which corresponds to about 0.5% of mean annual flow.

Ambatovy has a permit to withdraw similar volumes from the lower reaches of the Ivondro River near the plant site as a carrying medium for reactants in the nickel-extraction process.

Much smaller extractions will be made from the Andranoverly River for human consumption at the mine site. This water will be processed by a treatment plant. None of the sources of water withdrawal will be significantly affected. Ambatovy's Water Management Plan, coupled with strict environmental regulations, ensures that no withdrawal will have any impact on the health of aquatic ecosystems.

TABLE 2: ESTIMATED WATER WITHDRAWALS DURING OPERATIONS

SOURCE	AMOUNT
Mangoro River (mine site)	1,800 m ³ /hr
Andranoverly River	N/A
Ivondro River	1,375 m ³ /hr
Total	3,175 m³/hr

At the mine site, the most sensitive ecological area of the Project, there are three large sedimentation ponds, which ensure the water that flows through impacted land or ore preparation processes does not release sediments into local water catchments. Furthermore, regular testing at the mine site and along the pipeline of such measurements as total suspended solids (TSS), pH, heavy metals and coliform bacteria ensure the Project is not adversely impacting water quality. A sewage treatment plant at the mine site ensures that treated effluent meets applicable standards before discharge into the retention ponds and subsequently into the local water courses.

The tailings facility will collect large volumes of runoff from the upper reaches of three water basins. During operations, the tailings material will be disposed into the basins in phases as the Project progresses. All collected water within each basin will meet prescribed water quality requirements prior to being discharged to the ocean through a diffusor system. Water management at the tailings facility includes a groundwater interception system to prevent movement of contaminated groundwater into the downstream reaches of the basins. Ground and surface water monitoring plays a key role in the protection of the downstream fresh water systems.

The tailings facility is a long-term construction project involving continuous raising of the perimeter dams to meet containment needs. During the course of construction activities, the development and management of erosion collection systems to protect the downstream resources are established.

C1.4 Emissions, Effluent and Waste

Ambatovy's Waste Management Plan was developed to put in place the necessary measures and procedures for correct storage, collection, transportation and disposal of waste generated by the Project's construction and operations phases. Waste management will be carried out in a manner that is safe, efficient and environmentally secure.

The main objectives of the Waste Management Plan are:

- ▶ To minimize waste through reduction, reuse, recycling and recovery.
- ▶ To reduce the volume of waste through the implementation of well-defined plans and procedures.
- ▶ To prevent or minimize any adverse impacts on the environment, in particular impacts related to the local population, flora, fauna, surface and groundwater and surrounding air.
- ▶ To ensure that all businesses, contractors, staff and managers take all necessary measures aimed at:
 - Ensuring the health and safety of site personnel, including all employees, subcontractors, vendors and visitors
 - Optimizing the use of available resources
 - Avoiding costly cleanup operations
 - Preventing and reducing any adverse effects
- ▶ To stabilize waste through appropriate treatment or elimination.
- ▶ To track all waste generated, treated and disposed.

In accordance with the terms of the Basel Convention, Ambatovy does not ship any waste out of the country.

Waste management during construction has focused on wastes generated by construction (i.e. domestic waste from camps, waste construction materials, scrap metal, wood, plastic bottles, paper), based on a combination of reuse, recycle, treatment, landfill, sale (for scrap metal) and incineration. In the operations phase, waste volumes will decline and the proportion of wastes recycled or incinerated will rise. All chemicals utilized within the process will be consumed.

Recycling of Used Materials

During the construction phase, the plant site generated an average of 600 m³ of waste timber a month. To make use of this material, Ambatovy set up a program to prepare, sort and distribute this wood to nearby communities that prepared detailed plans for the reuse of the timber. These communities have used this material to build benches, tables, cupboards and various other items for use in schools and churches.

Plastic bottles are collected by a local contractor for shredding and recycling. Bottled mineral water is being progressively replaced with potable water produced by the plant, distributed to water coolers and dispensed into reusable bottles. Scrap metal is sold to a local company.

At the mine site, all solid waste is sorted. Vegetable food waste is separated for composting, while meat waste is incinerated. Paper, plastic and wood are all appropriately sorted for recycling.

Overburden

At the mine site, there is a comprehensive system for dealing with overburden and waste rock that is screened and rejected from the slurry-making process. Overburden is primarily composed of large pieces of rock and ore with low levels of nickel and cobalt. Between six and ten percent of the total materials mined are rejected as overburden, returned to the pit and covered with topsoil during the mine site rehabilitation process.

Production estimates:

- ▶ 90-94% of all mined material will be converted to slurry
- ▶ 6-10% will be rejected as overburden
- ▶ A capacity of 1,000 tonnes per hour of materials go into the primary sorting process
- ▶ Up to 100 tonnes per hour of overburden will be returned to the mine site

TAILINGS

The tailings are neutralized with limestone and pumped from the plant site via a 15 km pipeline to the 750 ha tailings facility. Ambatovy's tailings facility was built to specifications consistent with the requirements of the IFC. The facility will be progressively stocked with inert waste material. Supernatant mineralized water from the tailings facility is sent down a pipeline and discharged into the ocean via a 1.5 km outfall, the last 500 m of which are equipped with 100 diffusers to ensure rapid dilution and make localized impacts unlikely.



The mineral content of the excess water – which is quite similar to that of seawater – is rapidly absorbed by the tremendous volume of the ocean itself. When the tailings site has been filled, it will be reclaimed and drainage systems re-established.

The tailings site was chosen for its relatively low environmental sensitivity.



EMISSIONS

During the construction phase, emissions have been primarily transport related. As operations begin, the balance will shift strongly to emissions of greenhouse gases (GHGs) from industrial operations, most of which would be attributed to the generation of power and the use of limestone. The management of GHG will be through operations efficiencies. The plant site, for example, was designed to minimize emissions to meet criteria stipulated by local regulations or the IFC, and sometimes both. We will calculate and report on an annual basis what our GHG emissions are, per our management plans.

TABLE 3: TOTAL EMISSIONS IN TONNES FROM CONSTRUCTION FUEL CONSUMPTION DURING 2010

GHGs	DMSA	AMSA
Carbon dioxide (CO ₂)	40,385.3	41,499.0
Methane (CH ₄) as volatile organic compounds carbon dioxide equivalency	37.3	38.3
Nitrous oxide (N ₂ O) as NO _x carbon dioxide equivalency	376.0	386.4
Subtotal emissions CO ₂	40,798.6	41,923.7
Total emissions CO₂ for Ambatovy during 2010	82,722.3	

Reduction Initiatives

The plant design incorporates in-country processing coupled with newer technology for maximum efficiency. The facility is designed to be efficient from the start. Emission control systems include:

- ▶ Electrostatic precipitators on power plant emissions
- ▶ Capability to add lime to the power plant emissions to reduce sulphur dioxide (SO₂) emissions
- ▶ Scrubber systems to avoid ammonia and hydrogen sulphide emissions
- ▶ Flares to eliminate ammonia and hydrogen sulphide releases
- ▶ Oil separation systems to avoid oily water discharges

Ozone-Depleting and Other Emissions

Ambatovy has equipment in place to monitor all emissions once operations begin. A small proportion of emissions will comprise CH₄ and N₂O. This quantity can be converted into carbon dioxide equivalent (CO₂e). This amounts to less than 1% of total emissions.

AIR QUALITY

Ambatovy is conscious of the potential impacts that its operations may have on the surrounding atmosphere and therefore takes great care to ensure that all applicable regulations with respect to air quality are properly followed.

During construction and operations, some air and noise emissions will be generated by equipment and machinery (boilers, pumps, fans, machinery, etc.) and there will be increased traffic flow on access roads around Project sites. A noise-monitoring program has been

established to measure and mitigate potential impacts on human health and the surrounding wildlife.

Comprehensive monitoring of air quality, particulate matter and dust emissions at the mine and plant sites will be evaluated on an ongoing basis. The monitoring system is based on international standards and includes measurement of pollutants, sampling methods as well as meteorological data analysis. Air quality monitors have been installed within the perimeter of the mine and plant sites and provide continuous monitoring of ambient air. These monitors measure nitrogen dioxide (NO₂), sulphur dioxide (SO₂), particulate matter and total dust.

C1. Environmental Performance

Ambatovy's Air Quality and Noise Management Plan was developed to ensure that systems in place achieve the required objectives through data collection and analysis.

Key components of the Air Quality and Noise Management Plan include:

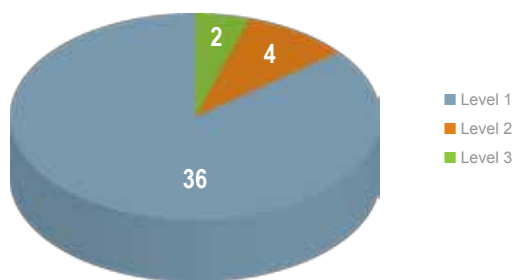
- ▶ The collection of meteorological data in the area to help understand dispersion characteristics at any given time.
- ▶ Regular monitoring to ensure that construction and operational activities do not have a negative effect on air quality and noise levels for employees and local communities.
- ▶ The verification of air quality and noise emissions from mobile and fixed equipment against baseline levels and standards.
- ▶ Correct maintenance of all equipment and machinery.

ENVIRONMENTAL INCIDENTS

Ambatovy operates an Incident Reporting System (integrated with the Health and Safety and Security Departments), which encompasses losses of containment and loss of biodiversity. All spills are tracked and documented as part of the internal compliance reporting process.⁸ The majority have been small fuel spills. Spills are categorized into three levels as shown in the table below. Figure 1 gives a breakdown of our environmental incidents in 2010, by level.

FIGURE 1: ENVIRONMENTAL INCIDENTS BY LEVEL

Environmental Incidents in 2010



The main concern at the mine site is the risk of fuel and oil spills from storage tanks, generators and vehicles, or from the ore screening machinery. Ambatovy has a comprehensive Emergency Response Plan for a pipeline spill or breach. A pipeline breach is considered an extremely unlikely event. Furthermore, in the event of a leak, the slurry in the pipeline is a benign mixture of earth and water that does not pose a serious contamination risk.

The plant site is the most complex of the Project's components and therefore a wide range of possible spills could occur. The full range of possible spills has been identified and their respective risks have been assessed to ensure that we understand and have controls in place to address them. In some instances we have conducted detailed risk assessments to identify potential severity and controls. The emergency response team has prepared itself to respond to a large variety of potential issues that may arise; this effort includes "dry runs" to practice the implementation on response to incidents.

Off-site spills have also been taken into consideration. Main spill risks are fuel leaks from vehicles such as cars, trucks, trains, ships and airplanes. Each has its own protocol for dealing with leaks or spills and the risk is no more significant than any other operation using such vehicles. There were no spills from the port-to-plant infrastructure or railway in 2010. There is an extensive safety plan and vigilant monitoring due to the proximity of this transportation infrastructure to residential areas. Possible risks include:

- ▶ The pipeline that carries ammonia from the port to the plant and storage tanks located off-site.
- ▶ Spills of bulk material upon loading and transport.
- ▶ Spills from the rail line, which carries non-toxic products, primarily limestone and coal, and is separated by a fence from the densely populated areas of Toamasina through which it passes.

HAZARDOUS WASTE

Ambatovy is required to have systems to stabilize, dispose, treat or destroy all waste, by-products and output materials created by its operations.

LEVEL	CLASSIFICATION	CONCERN	CLEAN-UP	VOLUME
1	Minor	No risk of contamination of sensitive areas	Clean-up using kit on site	Volume is < 25 litres
2	Significant	No risk of contamination of sensitive areas	Clean-up using kit on site or specialized external resources (excavation, pumping, etc.); spill inside site limits	Volume is between 25-100 litres
3	Major	Contamination of sensitive areas	Clean-up using specialized external resources; decontamination required	Volume is > 100 litres

⁸ Incidents shown here are based on construction-phase parameters and construction contractor reports. During 2010, an integrated incident reporting mechanism was created that will monitor all environmental spills and incidents – both construction and operations related. As we transition from construction to operations, and for the 2011 report, we will use this latter incident level structure.



C1.5 Soil

Soil management is important during all phases of the Project and is required for all areas where the natural environment is affected by earthworks. Ambatovy's Soil Management Plan consists of three main components:

- ▶ Handling and storage of soil (topsoil and mineral soil)
- ▶ Sediment and erosion control
- ▶ Soil quality

The Soil Management Plan aims to ensure that proposed mitigation measures are properly implemented, that monitoring is carried out as planned and that the following objectives, among others, are achieved:

- ▶ To ensure that no excessive erosion occurs on any surfaces disturbed during construction that would require unforeseen mitigation measures.
- ▶ To provide realistic economic solutions to sediment and erosion control.
- ▶ To protect areas identified as environmentally sensitive to erosion (e.g. wildlife habitats, conservation areas, etc.).
- ▶ To facilitate rehabilitation activities.

C1.6 Energy

DIRECT ENERGY CONSUMPTION

An estimated 95% of Ambatovy's energy consumption will be at the plant and mine sites, both of which have their own power generating stations. Electricity and steam will be produced by a coal-burning power plant. The vast majority of the total energy required by Ambatovy will be for ore processing.

Mine Site

- ▶ Mine site construction – 600-800 KW continuous (total)
- ▶ Mine site operations – 18 MW total power available; 14-14.5 MW steady state
- ▶ Nine diesel generators producing two MW each
- ▶ Diesel: 80,000-100,000 litres

Plant Site

Three coal-fired boilers are used to produce steam, which is used to generate power and is required in the process. This steam production is supplemented from the waste heat boilers in the two acid plants. Process steam is used to heat slurry in the ore leach, sulphide precipitation, hydrogen reduction plant, ammonium sulphate plant and several minor refinery processes.

- ▶ Peak electrical demand is 80 MW with an average demand of 65 MW
- ▶ Three steam turbine generators with a capacity of 45 MW each
- ▶ Diesel generators are used as backup for critical equipment

ENERGY EFFICIENCY AND CONSERVATION

Since the Project is still under construction, there are no baseline data against which to measure energy conservation performance. Still, there have been several initiatives to conserve energy:

- ▶ During the pressure acid leach stage, steam from the flash tanks will be used in the ore slurry heaters and other plant areas to optimize energy utilization.
- ▶ Diesel engines used for mine site electrical generation and plant site construction and backup can be converted to heavy fuel (HFO), which uses less refined hydrocarbons.
- ▶ All overhead lights at Ambatovy have photoelectric cells that turn off when they do not sense movement for a period of time.
- ▶ At the mine site, water pumps use the most energy. There are 20 electric motors with high efficiency variable speed drives.
- ▶ The overall layout philosophy is directed toward minimizing the volume of earthworks required and allowing gravity flow of process streams as much as possible. As well, with a single pump station at the mine, most of the energy to operate the pipeline will come from the natural gradient between the mine site and the plant site (1,000 m elevation difference).
- ▶ With the priority on completing construction and commissioning, there are no initiatives to reduce indirect energy consumption to date.



C1.7 Materials

Primary Materials Input

In addition to the approximately six million tonnes of ore that will be mined annually, the operation of the process plant will require the importation of raw input commodities. Ambatovy will use the following key material inputs annually:

- ▶ 1,700,000 tonnes of limestone
- ▶ 700,000 tonnes of sulphur
- ▶ 400,000 tonnes of coal
- ▶ 60,000 tonnes of ammonia

Processing also uses smaller quantities of materials, such as sodium hydroxide, alum and polymers.

C1.8 Transport

The scale of a project such as Ambatovy normally creates a significant environmental impact through transportation of goods and people. However, there are key factors that will help us reduce what might otherwise have been a large transportation footprint. The significant effects of road-based transportation common in many large mining operations will be vastly reduced for Ambatovy due to the slurry pipeline from the mine site. A further factor which reduces the need for road-based transportation is the location of the processing plant close to a major port that can accommodate both incoming raw materials and outgoing shipments of the finished product.

The existing port has been significantly upgraded and modernized to be safe, secure and efficient. The port upgrades will ensure a safer, cleaner transfer of energy products from tankers and bulk primary materials from cargo ships. Prior to any port construction activity, Ambatovy conducted extensive dust modeling studies to determine

and verify safe breathing levels based on air dispersion, particle size and the equipment to be used. Ambatovy's new infrastructure at the port has been designed and equipped with the latest systems to monitor emission levels.

The imported bulk materials will be unloaded from ships and transferred directly by rail cars to the process plant where they will be stockpiled. Madarail, Madagascar's rail company, will maintain and operate the rail facilities under an agreement for the life of the Project. The main line was rehabilitated and a second rail line was added to provide for a full double track operation. The use of an existing rail system greatly reduces heavy truck traffic in the city of Toamasina, which is already congested due to a nearby fuel storage facility that dispatches fuel to the rest of the country via tanker trucks. Decreased truck traffic reduces air pollution, noise and road damage.

The pipeline is another significant transportation infrastructure used by the Project. It has a proven design, similar to pipelines operating elsewhere in the world. Most of the energy needed to move the ore through the pipeline comes from the 1,000 m difference in elevation between the mine and plant sites.

Nevertheless, due to the size of the Project, there is still a significant traffic presence, including some heavy truck traffic bringing supplies such as food and fuel to Project sites. There is also significant bus and car/truck traffic for personnel moving in and around Project areas. In addition, national and international air travel is significant due to the need for skilled personnel from outside the Project areas. Ambatovy has a small charter plane that regularly travels between Antananarivo and Toamasina and uses Air Madagascar flights on a frequent basis for the same route. The international make-up of the construction workforce (74 countries were represented during construction) required many international flights in and out of Madagascar. This number will significantly decrease once the Project moves into its operations phase. No calculation of the number or distance of flights has been made at this point.



ECONOMIC TARGETS

Targets for Economic Performance in 2010

Invest in local capacity to participate in our supply chain.

Demonstrate transparency in tax payments and compliance with Malagasy government and other financial regulations.

Provide competitive remuneration and benefits to national employees.

Results and Next Steps

🟡 The Ambatovy Local Business Initiative (ALBI) was created in 2010 to promote our “buy locally, hire locally” policy. In 2011, ALBI will become fully integrated with our Supply Chain Management Department to facilitate local supply chain logistics.

🟢 In 2010, we were active participants in the EITI in Madagascar. We will continue to support the country’s EITI candidacy in 2011.

🟢 We are on schedule for this target.

🔴 Major challenges encountered 🟡 Challenges en route to resolution 🟢 Good progress made toward goal

C2.1 Management Approach to Economic Sustainability

Our vision is to contribute significantly to Madagascar’s development. Since Madagascar is a low-income country, our economic impacts could be particularly important in stimulating growth and alleviating poverty.

Our activities have the potential to improve the living standards of those working with our organization. We are also aware of the potential for negative impacts in the broader community and have developed strategies to mitigate them. Ambatovy’s initiatives for contributing to sustainable economic development include:

- ▶ Local business development to facilitate local procurement
- ▶ Major improvements to infrastructure
- ▶ Strong commitment to local hiring and training
- ▶ Strong commitment to local procurement
- ▶ Transparent management of funds and payments to government

We use a wide range of strategies and actions to fulfill these commitments. For example, we offer fair and attractive wages and invest heavily in the development of local human capital through training and professional advancement. Furthermore, we are committed to adhering to the financial and tax laws of Madagascar in a transparent manner and have been a firm supporter of Madagascar’s participation in the Extractive Industries Transparency Initiative (EITI). As well, we are actively developing the local supply chain as a part of our commitment to direct economic contributions to Madagascar. This will raise output in the local manufacturing and services sectors, contributing to the country’s GDP growth.

C2.2 Economic Performance

All figures quoted in the following tables are in US dollars and for the year 2010, unless otherwise stated. These figures represent costs paid by the Operations Group only, unless otherwise stated.

DIRECT ECONOMIC VALUE GENERATED

Revenue generation will commence after construction is complete. We will report on this and other factors that contribute to direct economic value generated in future reports.

OPERATING COSTS

Over the last four years, Ambatovy’s costs have been primarily for construction and preparing for the operations phase. The significant construction costs have been managed separately from operations costs and what is listed below is related only to the latter. We have chosen to report only on operations costs as this will provide comparability for future reports. As the construction phase comes to an end and operations begin, many one-time costs will taper off significantly. The current investment forecast is approximately \$5.5 billion.⁹

Table 4 (following page) accounts for operations-related costs incurred in 2010, including salaries and benefits, taxes and compensation payments to Project-Affected Persons (PAPs). Royalties will not commence until the operations phase. In 2010, payments to local suppliers were in the hundreds of millions of dollars and our commitment to buy locally will continue as we transition from construction to operations. Disaggregated operational payments to local suppliers were not available for this report, but we will endeavour to report on this key commitment in the future.

⁹ As of June 2011 the Project partners released updated financial and scheduling information, which brought the investment costs to US\$5.5 billion, excluding finance charges, working capital and foreign exchange.

C2. Economic Performance

TABLE 4: ANNUAL OPERATING COSTS

ANNUAL OPERATING COSTS	
Non-strategic investments	\$0
Land and compensation payments	\$388,300
Payroll	\$6,063,900
Benefits	\$3,241,700
Salary tax	\$9,969,500
Land leases	\$1,000,000
Tariffs	\$839,300
Royalties	\$0
Other	\$1,623,900
Donations and sponsoring	\$164,200
Total	\$23,290,800

Compensation

While the Project endeavours to avoid and minimize impacts on the homes and livelihoods of surrounding communities, some construction activities resulted in unavoidable loss of property and income. In these instances, the Project compensated accordingly. In 2010, compensation was paid to people impacted by construction in four areas: the pipeline, the plant and tailings sites, the mine bypass road and the mine lease area. Compensation was monetary or in-kind. If land was not yet ready to be transferred, the Project disbursed paddy (unprocessed rice) to compensate for production losses.

TABLE 5: MAJOR COMPENSATION DISBURSEMENTS BY ZONE

MAJOR COMPENSATION DISBURSEMENTS BY ZONE	NO. RECIPIENTS	IN-KIND (PADDY, TONNES)	MONETARY
Pipeline – impacted rice fields	344	123	\$156,673
Pipeline – ROW construction	733	0	\$159,057
Resettlement villages	68	0	\$13,717
Mine area	299 ¹⁰	220	\$58,843
Total	1,444	343	\$388,290

Employee Wages and Benefits

As of the end of 2010, the Project (construction and operations) spent a total of \$19.8 million on local employee wages and benefits. Table 4 shows local salaries and benefits only to operations employees and does not include construction employees (such as those of contractor companies that handle their employment terms separately from the Project).

Payments to Governments

Ambatovy has been an active participant in the Multi-Stakeholder Group for Madagascar's EITI candidacy. The first report of audited payments to the Government of Madagascar will be published in 2011, in accordance with the country's bid for compliant country status. It should be noted that table 4 shows salary tax paid on all operations salaries for nationals and expatriate visas, whereas the salaries and benefits are referring only to national employees. Disaggregated tax figures were not available, however we will endeavour to report them in the following year.

Donations

Every year Ambatovy sets aside dedicated funds to respond to requests for donations and sponsorships. Our donations policy ensures a transparent process, timely responses and accountability for funds and materials donated. Ambatovy has supported civil society groups working in the areas of health, education, hygiene and sanitation. Our donations have also funded activities related to World AIDS Day, International Women's Day, sporting events and school infrastructure.

PROJECT C.U.R.E.

Ambatovy is working in partnership with the American non-governmental organization Project C.U.R.E. and Madagascar's Ministry of Health to improve access to and the quality of health care for communities neighbouring Project sites. Specifically, Ambatovy funded the transportation of \$2.5 million worth of medical equipment and supplies donated by Project C.U.R.E. to Madagascar. The shipment included defibrillators, centrifuges, medical consumables (bandages, tubes, etc.), sterilizers, and care and diagnostic equipment to upgrade district-level hospitals and basic health centres in and around Toamasina, Moramanga and Brickaville. This initiative will be replicated in other areas where the Project is present in 2011.

PAYMENTS TO PROVIDERS OF CAPITAL

No loan repayments have been made at this point as the Project is still in the construction phase and not yet generating returns on investment. It should be noted that Ambatovy has received no financial assistance or direct contributions from the Government of Madagascar.

COMMUNITY INVESTMENTS

Investment in public goods and community projects allows both the Project and our neighbours to have improved market access and economic participation. Prior to construction, the physical amenities in Madagascar could not support the size and scope of Project activities. As a result of our investment in infrastructure, both the Project and local communities may take advantage of these elements. For details on infrastructure investments, see section C2.4.



¹⁰ This number includes compensation payments to 18 local communities (rather than to individuals or heads of households) for disruption to sacred sites, which were seen to belong to the entire community rather than a single person.

C2.3 Market Presence

LOCAL JOB CREATION

Ambatovy has made local job creation a priority in our strategy to invest in Madagascar's development. We are committed to providing quality jobs with opportunities for training and advancement. Since Madagascar's workforce could not provide sufficient numbers of highly skilled personnel required by the Project, we began a ramp-up program even in the construction phase that will see national employees progressively hired and trained to fill positions currently occupied by expatriates. Ambatovy's standard entry-level wages start at 185% of the minimum wage in Madagascar, with opportunities for promotion and increases in pay. Ambatovy endeavours to attract the best of local talent and invest in the growth of our employees. For detailed information on hiring practices and our local employment statistics, see section C4.2.

In October 2010, an external research company carried out a study on the expansion of local businesses and jobs in 2009/2010. The study found that economic stimulation from Ambatovy had created more than 7,400 jobs in local businesses, including informal, small and medium-sized enterprises. This figure takes into account sub-contracted operators, including local suppliers, and non-contracted businesses, such as restaurants and shops that have increased sales due to the Project. These jobs were in addition to the Project's direct, on-site jobs.

LOCAL SUPPLIERS

Ambatovy has quickly become one of the largest consumers of goods and services in Madagascar. By maximizing local procurement, Ambatovy aims to provide a much-needed boost to Malagasy entrepreneurs. Over the entire construction period up to the end of 2010, Ambatovy signed more than \$1 billion in contracts with national and local companies. While the most significant supplies for operations will be commodities that currently must be imported, such as coal, sulphur and limestone. We are working to create opportunities for local businesses to participate in our supply chain for the operations phase.

The Ambatovy Local Business Initiative (ALBI) was created to promote the Project's "buy locally, hire locally" policy. Its main purpose is to contribute to job creation through the support and development of local industry, while maximizing local economic benefits. To this end, ALBI works closely with Ambatovy's Supply Chain Management Department to identify local companies capable of responding to the Project's needs.

ALBI and the supply chain team have created a local purchasing policy for the Project, augmenting employment opportunities in local enterprises. There were several notable local purchasing projects in 2010:

- ▶ Plant site uniforms were manufactured through two local businesses. ALBI's goal is that the two sewing workshops become fully independent in 2011. A similar project to procure mine site uniforms locally will be implemented in 2011 in Moramanga.



LOCAL PURCHASING CENTRES

Given the high number of new employees at the mine, Ambatovy realized early on that it would need to find a way to feed employees high-quality produce without fuelling inflation of local market prices. The purchasing centres (*centrales d'achats*, CAs) were established with this in mind. These are Malagasy-run ventures that are well on their way to being autonomous.

The CA serving the mine in Moramanga aims to bring local producers into the fruit and vegetable supply chain. It works with five different producer associations, which it helped to create with ALBI. Currently, 80% of its suppliers are local farmers. The other 20% are from other regions of Madagascar, supplying those items that cannot be grown in the region. Step by step, farmers are starting to specialize in high quality fruits and vegetables. Each week the CA receives two tonnes of prime produce from its farmers.

There are many challenges for small-scale farmers in Madagascar, not least of which are excess local supply, low prices and lack of alternative markets. Mr. Narson Rafidimanana, the director of the CA, has big plans, hoping to expand beyond Ambatovy and enter into the national supermarket supply chain. As the mine transitions to operations and has changing food supply needs, the CA is seeking other downstream outlets for its local producers. This will create access to a market that had previously been out of reach for small-scale farmers.

- ▶ Three fruit, vegetable and dried product purchasing centres were operational in 2010, two in Toamasina and one in Moramanga. These purchasing centres were created to respond to the Project's food needs and decrease pressure on local prices. An estimated 5,000 producers from the surrounding regions and an additional 3,000 from other regions of Madagascar supplied them with over 1,200 tonnes of vegetables in 2010. Total purchases were nearly US \$1.4 million.
- ▶ Ambatovy created a special project, which is in the initial stages aiming to utilize a local pine forest concession to produce pallets for product transportation. The wood will be produced by a local company with Forest Stewardship Council certification. Not only will this reduce the environmental footprint of our packaging, but it will also create a range of jobs in forestry and manufacturing.
- ▶ Once operations start, Ambatovy will need 80,000 metal drums and 80,000 bags a year to pack and transport refined nickel and cobalt. ALBI identified potential suppliers, obtained samples and selected a local company to manufacture the drums and bags. A new production line has been designed and the assembly line is expected to start up in 2011. The company will hire 30 more workers to handle production.



To facilitate local purchasing, a database was created of local small, micro and medium enterprises (SMMEs) eligible for supply contracts. By the end of 2010, more than 2,000 SMMEs had been registered in this database. Local business opportunities offered by Ambatovy involve various goods and services, including:

- ▶ Building materials and tools
- ▶ Clothing
- ▶ Computer services and communication
- ▶ Food products
- ▶ Hotels and restaurants
- ▶ Landscaping
- ▶ Packaging and containers
- ▶ Purchase and rental of vehicles
- ▶ Recycling and waste collection
- ▶ Training and recruitment
- ▶ Travel
- ▶ Safety equipment
- ▶ Welding supplies

Building Local Capacity

In addition to identifying the potential of local enterprises, ALBI was designed to provide support to local businesses and entrepreneurs and help create jobs. ALBI offers SMMEs training and capacity-building aimed at improving the quality of their products and services and making them more competitive in their local markets.

Since 2008, local SMMEs have received more than 4,000 hours of mentoring and more than 5,700 hours of technical training in various fields, such as accounting, project management, leadership, quality control, contract administration, tendering, environment, health and safety, industrial relations and growth management.

In addition, in 2010, the Project provided more than 11,500 hours of training at Ambatovy's Agricultural Training Centre (ATC) in Toamasina to demobilized employees and local stakeholders directly affected by Project activities.

C2.4 Indirect Economic Impacts

INFRASTRUCTURE INVESTMENTS

Prior to Ambatovy's construction, Madagascar had little of the infrastructure required by such a project. In fact, construction activities at Ambatovy began with virtually no supporting roads or utilities, making Ambatovy one of the largest greenfield mining projects currently underway anywhere in the world.

Transportation Infrastructure

Roads

The Project built and/or enhanced 100 km of roads and bridges. Some examples of the impacts of this investment are:

- ▶ Access to more markets and services for 11 rural communities near Project sites.
- ▶ Two new bypass roads, one at the mine site (16 km) and a second at the tailings (10 km), enhanced safety, security and access for local populations to transportation corridors and markets.
- ▶ An 11 km road linking the port to the plant site helped reduce traffic congestion in Madagascar's most important port city.

Port

Ambatovy provided extensive upgrades to the Port of Toamasina, Madagascar's largest seaport:

- ▶ Over \$70 million invested in port-related infrastructure.
- ▶ Rehabilitation and extension of Pier B (now 234 m), including a new fuel terminal.
- ▶ Installation of state-of-the-art equipment to facilitate the off-loading of raw materials.

Railway Line

To mitigate congestion along the port-to-plant corridor, Ambatovy has invested in rail line infrastructure:

- ▶ A 12 km railway line built in parallel to the existing line between the plant site and the port.
- ▶ A long-term contract with Madagascar's railway company, Madarail, to operate and maintain this new line and associated rolling stock.
- ▶ Establishment of appropriate safety measures and railway crossing systems for pedestrian and road traffic.



Non-Transportation Infrastructure

Water Pumps

During the construction phase, the Project drilled wells and installed water pumps along the pipeline for the communities affected by runoff and sedimentation from construction. An additional three existing pumps were rehabilitated. Ambatovy also supported training on maintenance, organizational capacity-building and money management, so that the wells could be sustainably maintained by local water user associations.

Anjoma Market

Previously, vendors in Toamasina sold market wares from stalls along the main roads, which were already congested with transport traffic going to and from the port. In 2010, construction was completed on the new Anjoma Market, which was handed over to the Municipality of Toamasina. By the time of writing, the municipality had developed a detailed management plan, the market had been inaugurated and vendors were utilizing the facility.

Training Facilities

Ambatovy has cultivated relationships with local universities, polytechnic schools and training centres in Antananarivo and Toamasina to invest in local human capital. In 2009, the Project supported physical infrastructure renovations and investment in new equipment at institutions, such as the University of Toamasina and the Alarobia Polytechnic School in Antananarivo.

Ambatovy Redeployment Centre and Local Employment Offices

A key program developed in 2010 is the Ambatovy Redeployment Centre (*Bureau de Redéploiement de la Main d'Oeuvre, BRMO*). The first BRMO opened in Toamasina in May 2010 and a second in Moramanga in November 2010. The BRMO assists demobilized Malagasy workers to access new jobs, specialized training or other income-generating activities through ALBI. In addition, to support the region of Atsinanana and the district of Moramanga, ALBI, in collaboration with the Ministry of Labour, contributed to the renovation of the Regional and District Employment Offices to revive their activities. These offices are open to all local job seekers.

INFLATION MONITORING

The Project recognizes the risk that our activities could cause inflation in local prices. With the influx of construction phase workers, goods can become less available, pushing up prices and putting pressure on the most economically vulnerable people in the communities. Ambatovy has therefore implemented internal monthly monitoring and analyses of the prices of essential products in local markets. These studies, along with national statistics, help ensure that Ambatovy develops effective strategies to avoid and mitigate inflationary pressures. Certain programs are also designed with this concern in mind. For example, the purchasing centres buy directly from producers, rather than from local markets, helping to reduce upward pressure on market prices. Some staff housing is provided by the Project to limit inflation in the local housing and rental markets near Project sites. It is noteworthy that during the critical construction years of 2009 and 2010, the inflation rate in Toamasina was significantly below the national average.

TABLE 6: INFLATION COMPARISON, TOAMASINA AND MADAGASCAR¹¹

	2009	2010
Madagascar	9.0%	9.2%
Toamasina	4.9%	6.4%

¹¹ Inflation calculated using Consumer Price Indices for 2008-2010, available from: Institute National de Statistiques. *Nouveaux indices des prix à la consommation : évolution depuis janvier 2001*. Last modified 01 September 2011, Instat, www.instat.mg/index.php?option=com_content&view=article&id=61&Itemid=116.



SOCIETY AND COMMUNITY RELATIONS

Targets for Social Performance in 2010

Implement community impact mitigation strategies based on valid data and sound science (ICMM principle 4).

Contribute to the social and institutional development of the communities in which we operate (ICMM principle 9).

Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders (ICMM principle 10).

Results and Next Steps

While we have implemented mitigation strategies, such as the resettlement program, we have also met with unforeseen challenges due to construction, such as impacted rice fields along the pipeline, and have been working in 2010 and into 2011 to manage and resolve these issues.

In 2010, we were largely focused on mitigation of impacts, which is a prerequisite for community development. Our social and institutional development programs were largely in the planning stages and will take on a greater role in 2011 and beyond.

2010 was a pivotal year as we began planning an effective stakeholder engagement strategy. We made good progress, but look forward both to increasing and improving this engagement through clearly defined relationship programs in 2011. This includes a number of independent and in-house reporting mechanisms.

 Major challenges encountered
  Challenges en route to resolution
  Good progress made toward goal

C3.1 Management Approach to Society and Community Relations

Ambatovy believes that our social license to operate comes from our communities and stakeholders. We are committed to working in a manner that is attuned to community expectations and acknowledge that we have a shared responsibility to help facilitate the development of strong and sustainable communities. By the end of 2010, we integrated four of the ICMM principles as our strategic social objectives.

These strategic objectives correspond with four main areas of focus:

- ▶ Impact mitigation
- ▶ Community relationships
- ▶ Community development
- ▶ Economic development

Impact mitigation seeks to provide an interface with communities directly affected by our activities and construction that will avoid, reduce or compensate for impacts. This is directly related to ICMM principles four and ten. Implementation can encompass a wide range of activities, including educating the local population on safety procedures and carrying out detailed prevention programs, such as our campaigns on HIV/AIDS and zero tolerance for child exploitation. The most significant aspects, however, are those mitigation measures that relate to resettlement

and compensation for loss of assets and amenities. Our mitigation efforts also include initiatives such as our archaeological program, which put into practice our long-term commitment to help preserve Madagascar's cultural heritage.

Community relationships correspond to ICMM principle ten, an integrated approach that influences how we conduct all other activities. The cornerstone of community relationships is stakeholder engagement. Programs, such as awareness campaigns, the grievance mechanism, and community donations and support are just some of the ways we put this approach into practice. We also do it through informal relationships. We could not mitigate the effects of construction on a community without first cultivating a good relationship with that community. See section B3 for detailed information on our stakeholder engagement philosophy and the grievance mechanism. Donations and sponsorship strategies may be found in section C2.2.

Finally, our community and economic development initiatives reflect our commitment to ICMM principles three and nine. Ambatovy is committed to making a positive, sustainable difference in the communities in which we work. The well-being of those affected by the Project's activities is of primary importance and all initiatives within Ambatovy's CSR strategy and framework documents reflect and underline this commitment. This includes a variety of programs and initiatives, such as health campaigns, education initiatives, investment in sustainable livelihood mechanisms and job creation through ALBI. For detailed information on all our economic development initiatives, see section C2.

C3. Social Performance

To be effective in these areas, we endeavour to operate with the following philosophy:¹²

- ▶ Our relationships matter
- ▶ The nature of our relationships is predictable
- ▶ People everywhere get annoyed about the same issues
- ▶ Viewpoint matters
- ▶ Our impacts are never neutral
- ▶ How we operate determines the degree of control we have over outcomes
- ▶ Positive relationships are built on solid foundations
- ▶ Maintaining relationships requires continuous effort

We are driven by the desire to build and maintain a constructive and mutually beneficial relationship with our communities. That is dependent upon achieving the following goals:

- ▶ Ensure benefits, such as jobs, contracts and projects, are distributed in a way that is seen as fair and transparent.
- ▶ Promote behaviour that is respectful.
- ▶ Recognise and be held accountable for indirect project impacts, such as increased vulnerability, population influx and social change.

We know that how Ambatovy distributes benefits and manages side effects of our activities determines whether we get it right or get it wrong with our communities. We seek to embed our philosophy by consistently articulating our values, code of conduct and guiding principles and implementing a robust set of practices.

C3.2 Resettlement

As a result of the tailings and plant site construction, people living in these areas had to be resettled. Obtaining local, national and international stakeholder acceptance of the resettlement process was a key factor for the Project to obtain our social license to operate in the area.

Following the World Bank's principles on involuntary resettlement and the IFC's guidelines for resettlement action plans, Ambatovy built two villages, Vohitrambato and Marovato. Covering a combined area of 1,100 ha, these sites are now host to the resettled population. The new villages offer the relocated populations access to many social services lacking in most rural areas of Madagascar, such as access to education, health, proper housing and clean drinking water. These services are critical ingredients for building the capabilities of these communities and their residents.



RESETTLEMENT AT A GLANCE

- ▶ 296 new homes
- ▶ A plot of agricultural land for each household
- ▶ A community health centre, primary school and two preschools
- ▶ New roads, bridges and irrigation canals
- ▶ 150 ha of flat, arable land provided for rice production
- ▶ An additional 47 ha allocated and prepared for vegetable gardens and fruit trees

With the resettlement phase completed in 2008, Ambatovy has since been active in these villages implementing a comprehensive Social Development Plan. This Plan was established using participatory processes aimed at sustainably improving the quality of life.

Food Security and Agricultural Improvement

Ambatovy offers agricultural extension services, tools and seeds as a way of improving livelihoods. Programs apply a diversified approach to agriculture, working with villagers to implement short-cycle subsistence crops, market gardening, perennial crops and forest production. Ambatovy has already seen the benefits of the agricultural extension program. By 2010, the Project was no longer providing the villages with the majority of inputs and there had been a marked increase in agricultural production and domestic composting for fertilizer. To complement agricultural activities, Ambatovy worked with a local non-governmental organization to improve village nutrition. Cooking demonstrations and nutritional education are given to adults and fifth grade students, who are often responsible for cooking while their parents work.

¹² From Zandvliet, Luc and Mary B. Anderson. *Getting it Right: Making Corporate-Community Relations Work*. Sheffield: Greenleaf Publishing, 2009.



Community Healthcare

A community health centre was built in Vohitrambato. It is fully functional with a doctor and midwife. In May 2010, Ambatovy financed a mass dental campaign that brought in specialists from Toamasina University Hospital. In addition to dental work, these specialists conducted a dental hygiene awareness campaign with school children and distributed toothbrushes. Moreover, thanks to training provided by Ambatovy, 29 residents have become volunteer health promoters, educating community members on common illnesses, reproductive health, general hygiene, HIV/AIDS prevention and routine vaccinations. By October 2010, 73% of children under five had completed their vaccination schedules on time, whereas prior to resettlement none of the children had completed their routine vaccinations.

Education

A primary school was built in Vohitrambato while families in Marovato were resettled a short distance from their original local school. Prior to resettlement, school enrollment in both villages was 33%. In 2010 enrollment reached 82% at the new school in Vohitrambato and 100% in Marovato. Ambatovy is progressively transferring the administration of the Vohitrambato school to the community. By 2010, qualified authorities had taken responsibility for teachers' salaries and the Project instituted a monthly bonus program to combat teacher absenteeism. The two preschools established in 2009 have already proven successful. The director of the Ampasimbola School, where the Marovato children attend, noted that first graders who had completed preschool were more attentive, curious and participative. Ambatovy also supported adult literacy, French-language training and other extracurricular activities at these school facilities.

Institutional Capacity-Building

In 2010, Ambatovy began working with the communities to create villager associations, which will enable a progressive transfer of community management to the villagers themselves. Ambatovy has organized sporting events in the villages, with football tournaments being the highlight. These events gather large crowds and present opportunities to promote key messages on topics such as eradicating violence against women, personal hygiene and health care. A gender empowerment program was expanded in 2010 to include both men and women.

Promoting Entrepreneurship

Ambatovy has implemented various economic development programs aimed at increasing commercial networks and promoting the sale of local produce. A group of women in Vohitrambato participated in a handicrafts training program. Classes included sewing, embroidery, needlepoint, basketry, production and sales. This training was aimed at improving the quality of traditional and new handicraft products. Since 2009, a local microfinance institution has been conducting an education program that covered basic financial management and entrepreneurship. The program also taught residents how to save, invest and fulfill credit requirements. To increase financial stability and access to credit, Ambatovy is in the process of securing legal land titles for all the resettled households. The first deeds are expected to be ready in late 2011.

C3. Social Performance

C3.3 Community Development Programs

ZERO TOLERANCE CAMPAIGN

At the start of construction, a code of conduct was introduced governing the behaviour of expatriate personnel with respect to the local culture, environmental protection, personal behaviour and other core values. This aimed to prevent problems between the local communities and foreign staff and ensure full compliance with the International Labour Organization's Convention 182, IFC Performance Standards and Madagascar's national laws. In 2008, a Project-wide version of the code of conduct was developed and all staff – national, expatriate and contractors – were then required to sign it. The code, which outlines Ambatovy's zero tolerance of sexual exploitation, includes confidential reporting mechanisms and disciplinary procedures.

TABLE 7: ZERO TOLERANCE CAMPAIGN ACCOMPLISHMENTS IN 2010

	PLANT SITE	MINE SITE	OFF-SITE OFFICES	PIPELINE	TOTAL
Employees educated on zero tolerance policy	2,506	455	170	364	3,495
Educational materials distributed	7,100	455	N/A	203	7,758

COMMUNITY SAFETY AND SECURITY

Ambatovy has made safety a top priority inside all sites and, where possible, in local communities. Project truck drivers received traffic safety training and local communities living near Project access roads were educated on road safety through signage and village visits. Ambatovy, in conjunction with Madarail, was also proactive in raising awareness about safety along the rail line between the plant site and port through public awareness sessions, public consultations, door-to-door information distribution and multimedia presentations in local schools and churches.

In addition, throughout 2010 Ambatovy worked with local communities to set up associations responsible for monitoring the pipeline infrastructure for damage or theft. In return, the Project paid a regular stipend to the associations to invest in the development of their communities.

CULTURAL PRESERVATION

Ambatovy is committed to making sure that any archaeological artifacts and remains are handled respectfully and in accordance with local customs and scientific procedures. Ambatovy's archaeological team surveyed cultural heritage sites prior to construction, involving rigorous documentation and mapping with the help of community members. During construction of the pipeline, all sites were thoroughly checked for items of archaeological interest or value and, where possible, the Project diverted the pipeline route around



COMMUNITY MONITORING ASSOCIATIONS AND THE PIPELINE

With approximately 220 km of pipeline between the mine and the plant site, Ambatovy knew that it would never be able to maintain constant surveillance on environmental, social and security issues without help. Prior to 2010, members of the Environment and CSR Departments kept track of equipment theft, erosion, flooding or pollution of water sources. Yet the job was far too big and some of these issues already existed in the communities in the area and not just along the pipeline itself.

Since community watch groups were already common in rural Malagasy culture, the Ambatovy CSR team came up with a plan that would allow the communities around the pipeline to take the lead in monitoring the area of the pipeline. In November 2010, Ambatovy joined forces with a local NGO to initiate new community associations and work with existing ones to create a network of social surveillance agents living along the pipeline.

By the end of 2010, half of the 32 associations had already been selected and organized. These 32 associations will represent more than 1,000 community members who are committed to monitoring regularly pipeline assets that are near their homes and farms. Ambatovy and its partner NGO are working together to provide the community groups with technical and administrative capacity-building. This creates a symbiotic relationship with these monitoring associations. The Project has eyes and ears along the pipeline that will alert us to issues that need to be addressed while the communities receive capacity-building and investment in the associations, creating long-term security well beyond the pipeline into their own villages.

sensitive cultural sites. In locations where burial sites or artifacts were found and their relocation was necessary, Ambatovy followed specific cultural practices, local traditions and strict scientific protocols to ensure minimal disruption.

The archaeological team also worked with external institutions, such as the University of Toamasina and the CEREL Museum (*Centre d'études et de recherches ethnologiques et linguistiques*), to create a digital catalogue of artifacts found throughout the construction period. By the end of 2010, nearly 30% had been catalogued.

Ambatovy's archaeology team has found more than 4,250 remains and made inventories of six archaeological sites and 91 sites of archaeological interest. It appears that remains found at the mine site date back to the late 18th and early 19th centuries. Jars, small jugs and large terra cotta pots are just some of the items that have been discovered and preserved.

C3. Social Performance

PUBLIC HEALTH

With the influx of construction employees into Project areas, there are bound to be public health impacts. Ambatovy is committed to fighting the spread of HIV/AIDS among its workforce and in nearby communities. In 2010, we led an HIV/AIDS campaign that educated both employees and people in Project zones. Prevention programs were in place at all Project sites, which included peer education, condom promotion and distribution, information sessions and confidential testing. Partnerships with specialized agencies were also in place to help provide awareness on HIV/AIDS and STDs.

TABLE 8: 2010 HIV/AIDS WORKPLACE CAMPAIGN

PERIOD	PEOPLE REACHED	CONDOMS DISTRIBUTED	VOLUNTARY TESTS	HOURS OF EDUCATION
2010	16,161	52,606	495	11,274

The other major public health initiative in 2010 was educating PAPs on clean water and sanitation. Ambatovy installed wells and water pumps along the pipeline and in the resettlement villages. In the villages, training followed the WASH (water, hygiene and sanitation) program. Along the pipeline, capacity-building sessions were conducted with community members to train them in money management, organization building and basic maintenance to ensure that the wells and pumps remain in working order.

TABLE 9: INSTALLATION OF WELL AND PUMP INFRASTRUCTURE

LOCATION	PUMPS AND WELLS INSTALLED OR REHABILITATED	PEOPLE TRAINED IN 2010
Pipeline	52	200
Resettlement villages	50	501

EDUCATION

Education is a significant concern in Madagascar, where two-thirds of the population live in severe poverty¹³ and many children, particularly in rural areas, are not in school. The most significant project in 2010 for Ambatovy's education program was collaborating with UNICEF in financing the "Contract for School Success" Program (*Contrat Programme de la Réussite Scolaire, CPRS*). The CPRS program started in Madagascar more than 10 years ago and has significantly contributed to improved access to primary school education, retention rates and parent/community participation in education. The aim of this training program is to mobilize the main education actors (administrators, teachers, parents, students, etc.) through community contracts and action plans to drive their own local educational goals and activities. So far Ambatovy and UNICEF have received 237 action plans and trained 299 principals in the districts of Moramanga, Brickaville and Toamasina II. These action plans will affect some 43,600 students across 19 municipalities.

¹³ In 2010, Madagascar ranked 135 out of 169 on the Human Development Index with 68% of the population living below the poverty line of \$1.25 per day. Source: UNDP. *International Human Development Indicators: Madagascar*. Last accessed 06 September 2011, hdrstats.undp.org/en/countries/profiles/MDG.html.



HIV/AIDS INITIATIVES

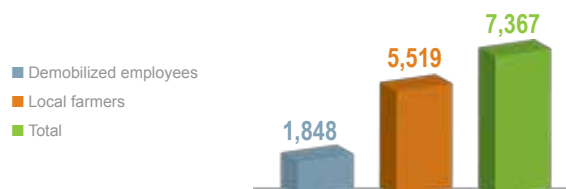
- ▶ In 2010, more than 52,000 condoms were distributed, mainly through dispenser machines located in washrooms at Project sites, ensuring free access in total confidentiality.
- ▶ Also in this year, approximately 11,000 employee hours were spent in HIV/AIDS awareness sessions.
- ▶ Ambatovy worked closely with the Voluntary Counseling and Testing Centre of Moramanga near the mine site to support community awareness and outreach.
- ▶ In December 2010, Ambatovy sponsored World AIDS Day events in Toamasina, Moramanga and Anivorano reaching more than 20,000 people with prevention messages and facilitating more than 360 voluntary tests.

In addition to the CPRS, Ambatovy was active in promoting education through a range of other channels. Employees were offered an educational allowance to assist with their children's school fees. Ambatovy provided training and capacity-building to local small businesses interested in supplying the Project. The Project also undertook book and school supply donations throughout the year, distributing nearly 1,900 books.

LIVELIHOOD SECURITY

The vast majority of people near the pipeline are rural farmers living in isolated villages. Various initiatives have been created to support agricultural production and livelihood security in Project areas. For example, Ambatovy constructed the Agricultural Training Centre (ATC) in Toamasina and plans are underway for another branch in Moramanga and one in Brickaville. These training centres target demobilized workers who wish to return to rural production, PAPs and small-scale farmers in Project areas. Farmers received advice and technical support on how to improve their fruit, vegetable and livestock production, and are linked with the CAs that supply produce for Ambatovy's catering service.

FIGURE 2: ATC REGISTRATIONS BY STUDENT TYPE, DECEMBER 2010





LABOUR RELATIONS TARGETS

Targets for Labour Practices and Decent Work Performance in 2010

Targets for Labour Practices and Decent Work Performance in 2010	Results and Next Steps
Conduct effective recruitment to prepare for operations.	● We are on schedule for this target.
Maximize local workforce composition.	● By the end of 2010, we were well on our way to meeting our target of >85% national employees for operations.
Safety record of zero lost time incidents.	● We did have some lost time incidents (see section C4.4), but preparations made in 2010 will lead to better results in the future.
Create effective training programs that will position local candidates to take on highly-skilled positions.	● 2010 was a great year for our Training Department, as we finished construction of our training workshops and launched the technical training programs that will set our employees up for future success.
Working conditions meet or exceed national requirements and negotiated terms of employment.	● We have in place standard policies that comply with Madagascar's Labour Code. In 2010, we experienced labour stoppages and have been working rigorously to ensure that the concerns of our workforce are heard and answered in a timely and satisfactory manner.

● Major challenges encountered
 ● Challenges en route to resolution
 ● Good progress made toward goal

C4.1 Management Approach to Labour Practices and Decent Work

Ambatovy is committed to being an employer of choice and has a number of policies in place to ensure that our workforce benefits from more than just a pay cheque. These include safe working conditions, access to training opportunities and a progressive working environment.

Local Recruitment

One of our top priorities is maximizing national employment and developing a local workforce capable of assuming roles with progressively greater responsibilities and technical skill development. We recognize the importance of offering competitive compensation, protecting workers' rights and promoting training and education programs. Our goal is to attract and retain local employees and provide them with long-term career growth and opportunities.

Health and Safety

Ambatovy is dedicated to running a safe and environmentally responsible mining and processing operation. Health and safety are embedded in the core values of the Project. As a result, Ambatovy has set up an ambitious policy aimed at achieving a rate of zero lost-time incidents to protect its employees, contractors and the wider community.

Training and Education

Ambatovy continues to work toward establishing a standard of excellence for specialized technical training to maximize employment opportunities for the people of Madagascar – especially those from areas near Project sites. While

construction has required technical expertise from around the world, we wish to see local talent assume highly technical roles as well as positions of leadership. This can only come from dedicated investment in training and education for our national employees. As we develop our local talent and ensure knowledge is transferred, we will transition many positions from the expatriate workforce to local talent.

Demobilization Support

While levels of employment were still high in the construction phase at the end of 2010, Ambatovy planned to implement the Assistance Initiative for Demobilized Employees (AIDE) program for 2011, which will provide demobilized construction workers with assistance as they seek new employment. While establishing this program is not a requirement, we believe that it is one way we can give back to those who played a key role in the construction of the Project.

Open Communication and Employee Feedback

Through Ambatovy's open door policy, employees are encouraged to provide feedback, suggestions, recommendations and complaints to managers and supervisors. Staff may also use formalized channels through employee delegates. Staff representatives are elected every two years by local employees. These delegates represent staff interests before Project management. Delegates form the Work Council, which is consulted by management on financial, organizational, social and cultural issues affecting Ambatovy. Negotiating the collective bargaining agreement is also part of the Work Council's mandate. In addition, Ambatovy employees are also able to lodge formal complaints following the reportable concerns policy.

C4.2 Employment

WORKFORCE

Ambatovy is creating direct and indirect jobs, which provide a major stimulus to the local economy. As in all mining projects, employment peaks during construction. However, thousands of long-term jobs will also be created during operations.

Ambatovy's job creation highlights include:

- ▶ Peak employment during construction was approximately 18,000 workers.
- ▶ During operations, employment is expected to be approximately 6,000 comprised of 2,500 employees and 3,500 contract personnel.
- ▶ Our target for the operations phase is to have at least 85% national employees.

We have made a key commitment to local hiring, with a priority on recruiting from the areas surrounding our sites, provided the candidates are properly qualified. This commitment aims to minimize future migration pressures and maximize economic benefits for communities near the sites.

To ensure local populations are well-informed of upcoming opportunities, the Project broadcasts regular employment announcements on local radio and TV, and posts job offers in public places as well as on Ambatovy's recruitment website.

Ambatovy's approach to recruitment is supported by a clear methodology and embraces three strict principles: non-discrimination, openness and objectivity. The selection process is based on various measurable criteria. Candidates go through technical, behavioural and linguistic testing and are required to pass several interviews. There is also a mechanism to voice any complaints that a candidate may have with the hiring process.

WORKFORCE STATISTICS

TABLE 10: TOTAL WORKFORCE, AS OF DECEMBER 2010

	NATIONALS			EXPATRIATES			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Construction	7,412	909	8,321	5,640	41	5,681	13,052	950	14,002
Operations ¹⁴ (includes contractors)	3,193	638	3,831	643	102	745	3,836	740	4,576
Total	10,605	1,547	12,152	6,283	143	6,426	16,888	1,690	18,578



EMPLOYEE BENEFITS AND LABOUR CONDITIONS

We strive to create a safe working environment that promotes the health and well-being of our employees. Our policy states that employees are eligible for:

- ▶ Our social benefits program, which includes health, death, accident and disability insurance.¹⁵
- ▶ Expenses and repatriation services for funerals and traditional Malagasy burials for the death of an employee and leave and traditional payment in the event of the death of a relative.¹⁶
- ▶ Overtime payments in the event that work hours exceed the standard 40-hour workweek, in accordance with Madagascar's labour law.¹⁷
- ▶ Indemnities when work requires employees to be outside their normal work location.
- ▶ Outside living allowance to employees who move to a Project area. The aim of this program is to help eligible employees secure decent and healthy accommodation.

¹⁴ "Operations" represents Operations Group employees and Operations Group sub-contractors. Construction represents those employees employed by SNC-Lavalin, the EPCM contractor, and sub-contractors. Construction employees are hired and administered by their direct employer (i.e. the sub-contractor) so demographics and policies hereafter, unless otherwise stated, refer only to direct Ambatovy employees (i.e. Operations Group employees).

¹⁵ Applies to all national permanent employees following the standard probationary period after recruitment.

¹⁶ Applies to all employees, regardless of permanent or fixed-term contract status.

¹⁷ Décret no. 68-172 du 18 avril 1968 portant réglementation des heures supplémentaires de travail et fixant les majorations de salaire pour le travail de nuit, des dimanches et des jours fériés, tel que modifié et complété par le Décret n°72-226 du 6 juillet 1972 (J.O. n° 588 du 04.05.1968, p. 886).

C4.3 Labour-Management Relations

Negotiations are underway for a collective bargaining agreement between management and national employees. It is expected that the agreement will be finalized by the end of 2011. Elected employee delegates represent the employees in the negotiation of the collective bargaining agreement.

EMPLOYEE CODE OF CONDUCT

To make sure we operate at the highest ethical standards, Ambatovy has adopted a comprehensive code of conduct that applies to the entire workforce. The code of conduct covers ethical behaviour by Ambatovy employees, such as avoiding conflicts of interest, corruption and our zero tolerance policy toward sexual exploitation of any kind. It serves as an educational tool and outlines the principles, values, standards and rules of behaviour that guide operations. Ambatovy will require that the code of conduct be acknowledged and signed annually to ensure all employees and contractors understand and adhere to key policies.

STRIKES AND LOCKOUTS

In total, there were two industrial actions (strikes and/or lockouts) of a week or longer during 2010. In the third quarter, construction activities at the plant site were suspended for 17 days in total. The disturbances primarily related to post-construction employment concerns for people from the Toamasina area. An agreement to resume work was reached in September, following discussions involving Ambatovy, worker delegates, community leaders and local politicians.

DEMOBILIZATION AND REDEPLOYMENT

Ambatovy is transitioning from construction to operations and the majority of workers recruited for construction will see their contracts come to an end. This is typical of any large-scale construction project and the workforce has been aware of it for some time. As a responsible employer, Ambatovy developed a demobilization program to assist its Malagasy workforce through this transition. For those employees whose short-term contracts have ended, but who still have much to contribute to the organization, the program assists redeployment to the Project. For those leaving the Project, Ambatovy offers several services to assist in finding alternative work:

- ▶ Redeployment Centres (BRMOs) were established in Toamasina and Moramanga to help demobilized workers find new employment opportunities with other organizations.



TRAINING FARMERS AT THE ATC

A highlight of the demobilization program in 2010 was the Agricultural Training Centre (ATC), which opened in June and specializes in agricultural training and techniques. The ATC was set up in collaboration with Madagascar's Governance Project for Mineral Resources funded by the World Bank. Located in Toamasina, the centre offers training courses in agriculture, livestock, accounting and business administration. The centre has already trained over a thousand people (40% women). After seeing soaring numbers of registrations, the Project decided to expand the program. By the end of 2010, plans were being made for ATCs in Brickaville and Moramanga.

- ▶ In collaboration with the Ministry of Labour, Ambatovy contributed to the renovation of government-run employment offices, which assist local job seekers and organizations with hiring needs.
- ▶ The ATC was established in Toamasina in 2010, offering agricultural training to demobilized employees who would like to return to or start agricultural production.
- ▶ At the end of 2010, the AIDE program was announced. This is a short-term financial support program for employees in good standing who have been demobilized. The program will be implemented in 2011.

C4. Labour Practices and Decent Work



C4.4 Occupational Health and Safety

TABLE 11: AMBATOVY HEALTH AND SAFETY RESULTS, 2010

	OPERATIONS	CONSTRUCTION
Total of hours worked	7,897,000	37,485,000
First aid cases	56	61
Medical treatments (MT)	15	33
Restricted work (RW)	0	0
Lost-time incidents (LTI)	2	5
Fatalities (F)	1	0
Frequency rate of recordable accidents (MT+RW+LTI+F)*	0.47	0.20
Frequency rate of lost time incidents (LTI+F)*	0.08	0.03

*For every 200,000 hours worked.

The health and safety of Ambatovy's employees, contractors and neighbouring communities is one of the company's top priorities. Ambatovy's zero incident policy provides the framework that guides every staff member's day-to-day commitment to a safe working environment.

Zero is also the only acceptable target for fatalities. Unfortunately, in 2010, a fatality was reported by a subcontractor. A worker was fatally injured during a transportation accident. A team of safety managers conducted a thorough investigation of the incident and additional training and safety procedures were introduced to prevent recurrence of such an incident.

Health and Safety Training

Various employees are required to complete general training on the following subjects: health and safety, first aid,

environmental rules and regulations, labelling of hazardous materials, safety documentation and firefighting. When appropriate, community members also receive health and safety training.

The year 2010 was a pivotal one as training programs were deployed to more than 10,000 employees and contractor personnel. Furthermore, more than 20 health and safety policies and procedures were converted into highly interactive courses.

Our safety record will benefit from continuous training of staff to be vigilant and follow the proper procedures. We regularly measure health and safety performance to ensure improvement and safe operations through comprehensive auditing and reporting procedures.

C4.5 Training and Education

EMPLOYEE TRAINING APPROACH

In preparation for the production phase, Ambatovy is steadily ramping up operational employment. We are also preparing staff for the handover of technical expertise from expatriates to nationals through specialized training. We have taken a hybrid approach that combines self-taught training, computer-based learning and traditional instructor-led classes. With this approach, employees can continuously develop skills, allowing them to advance professionally with Ambatovy.

TABLE 13: SIGNIFICANT EMPLOYEE TRAINING PROGRAMS, PEOPLE TRAINED PER YEAR

MAJOR TRAINING COURSES	2009	2010
Ambatovy General Induction	302	963
Health and Safety (contractors included)	155	10,540
Languages	135	933
Office Automation	123	765
Area Specific Training	N/A	216
Vendor Specific Training	N/A	335
Operators	12	354
Total	837	14,208

TABLE 12: HEALTH AND SAFETY TRAINING PROGRAMS, 2010

TRAINING PROGRAM	EMPLOYEES TRAINED IN 2010	DESCRIPTION
Permit to Work	4,870	Certain courses required before beginning work, such as working at height or in confined spaces.
Site Induction	4,160	General plant site safety rules and awareness required before working on site.
Pre-Operational Verification and Testing Induction	1,510	Training that provides a common approach to job and worksite safety requirements, specifically to those people involved in testing or commissioning areas.
Total trainings (including contractors)	10,540	

C4. Labour Practices and Decent Work

The strategic foundation of Ambatovy's training program is investment in creating local skills. Malagasy workers have received construction, technical and administrative training to ensure that national employees and managers are an integral part of the operations phase. During 2010, there were 3,547 registrations for a wide range of courses, such as languages, office administration and area-specific training. In addition, 107 maintenance technicians completed training for skilled trade positions, such as electricians, millwrights, instrument technicians, welders, pipefitters and planners. Also, 32 apprentices were cross-trained as port operators. This was in addition to the 115 maintenance technicians who had been trained in 2009.

TABLE 14: SKILLED MAINTENANCE TRAINING

MAINTENANCE TRAINING	2009	2010
Electricians	15	15
Instrument technicians	17	18
Millwrights	41	31
Welders	14	15
Pipefitters	15	17
Planners	8	6
Total	110	102

Specialized Training for Operations and Maintenance

The Ambatovy Training Centre was inaugurated in Toamasina in 2010. The centre has two large, fully equipped workshops for operations and maintenance training. Technical training courses last six to eight months followed by complementary preparation involving health and safety practices, language classes, information technology modules and practical work. The Training Department has a team of 35 comprised of trainers, sector-training coordinators and training advisors.

Technical Excellence Program

Qualified local applicants for highly technical positions are difficult to find. As a result, Ambatovy decided to make significant investments to increase local hiring for these positions. In 2011, Ambatovy will launch its Technical Excellence Program, an initiative that consists of 18 months of training and a two-month internship for young people from technical colleges in the Atsinanana Region. Over time, this will ensure graduates have the necessary skills to replace foreign workers who have come to help with Project start-up. Between 2011 and 2014, Ambatovy plans to train 216 operators for the plant site.

Training in the Community

Ambatovy is developing capacity-building initiatives that will provide vocational skills training to technical college teachers in Moramanga and Toamasina. In addition, Ambatovy is working in close collaboration with technical institutes in Moramanga and Toamasina to provide short-term internships for students in various fields.



C4.6 Diversity and Equal Opportunity

Our construction and preparations for operations involve a wide variety of trades and unskilled labourers. The construction sector has traditionally been male-dominated in Madagascar. However, we are committed to attracting and retaining top-quality candidates, regardless of gender, and have policies in place to ensure that women in the workplace are treated fairly. Ambatovy offers the same standard salary range to men and women and we have a maternity policy that provides paid leave and benefits to female employees as they manage both work and family.

TABLE 15: RATIO OF MALE AND FEMALE EMPLOYEES PER PAY GRADE LEVEL¹⁸

LEVEL	FEMALES	MALES
1	4.08%	95.90%
2	1.37%	98.60%
3	13.77%	86.20%
4	12.45%	87.60%
5	18.63%	81.40%
6	30.97%	69.00%
7	34.67%	65.30%
8A	35.78%	64.20%
8B	17.44%	82.60%
9	5.71%	94.30%
10	30.77%	69.20%
11	12.50%	87.50%
14 ¹⁹	0.00%	100.00%
Average	16.78%	83.22%

¹⁸ Refers to national operations employees only.

¹⁹ At the end of December 2010, there were no employees that fell within levels 12 and 13 of the employment scale.



HUMAN RIGHTS TARGETS

Targets for Human Rights Performance in 2010

Respect human rights as well as cultures, customs and values in dealings with employees and others who are affected by our activities (ICMM principle 3).

Ensure suppliers are aware of and in compliance with the ethical standards required by Ambatovy.

Increase awareness among our employees and local communities of child sexual exploitation and our zero tolerance policy on this issue.

Respect the human rights of our employees through sound policies on collective bargaining and non-discrimination, practised through open communication.

Promote the Voluntary Principles on Security and Human Rights.

Results and Next Steps

- ▶ This is a daily task for us at Ambatovy. We ensure compliance through our stakeholder engagement, mitigation and community relationship programs.
- ▶ We have a supplier code of conduct and in the future we will be looking to increase its distribution and implement systems for monitoring compliance.
- ▶ Ambatovy conducted a rigorous education program on our zero tolerance policy. We take this issue very seriously and in future years will be looking to increase employee awareness of the strict prohibitions in the code of conduct.
- ▶ By the end of 2010, we had put in place a collective bargaining process with elected employee delegates and discussions were ongoing with management. We look forward to an agreement in 2011.
- ▶ More work needs to be done foster a greater awareness of and commitment to the Principles in the Malagasy context. Ambatovy will continue to take an active role in doing so.

▶ Major challenges encountered
 ▶ Challenges en route to resolution
 ▶ Good progress made toward goal

C5.1 Management Approach to Human Rights

Ambatovy takes human rights very seriously and has a number of policies in place to ensure that all employees are treated fairly, equally and with dignity and respect. We also strive to ensure that the companies and organizations that we interact with follow the same principles and practices and treat their employees with the same fairness.

Ambatovy is committed to upholding the laws of Madagascar and is bound by our agreements relating to the IFC Performance Standards and the Equator Principles to respect human rights. Our commitment to respect human rights is manifested in our initiatives designed to monitor our performance. The grievance mechanism is our primary conduit to ensure that any concerns over the infringement of human rights are heard in a systematic and confidential manner.





C5.2 Investment and Procurement Practices

SUPPLIERS AND CONTRACTORS

Ambatovy's purchasing policy includes stipulations on standards of ethical conduct, which follow not only the spirit but also the letter of applicable laws in Madagascar and in other countries for international purchases. It requires that suppliers follow governmental regulations, company procedures and sound business practices. The policy also has clear anti-corruption clauses, aiming to prevent bribes and other unethical behaviour throughout our supply chain. Ambatovy checks the legal standing of in-country vendors before they are added to the list of potential suppliers. The Supply Chain Management Department has a code of ethics to ensure all suppliers meet the Project's standards with regard to human rights and with irreproachable professional conduct.

Construction purchase orders have been managed separately through the EPCM contractor and did not include the conduct clauses for suppliers. However, the EPCM contractor implemented its own worker code of conduct that addressed issues such as local customs and civil behaviour. In addition, bulletins have been issued to all site contractors reminding them of the Project's zero tolerance policy toward sexual exploitation of children, alcohol abuse, illegal drug use and misbehaviour. Contractors were required to acknowledge receipt and confirm adherence to these bulletins.

HUMAN RIGHTS TRAINING

The code of conduct has been in place since 2008 and was updated in 2009. Since November 2010, the basic induction training that all employees must complete has included a

review of the code of conduct, which details the Project's policy on human rights. All employees must agree to abide by the code, which is also in the Ambatovy Employee Handbook that each employee receives. The Project is implementing a two-pronged approach by educating employees as well as conducting community engagement on the issue. Human rights violations are grounds for termination of employment.

C5.3 Non-Discrimination

Ambatovy's recruitment strategy is based on non-discrimination in terms of non-job related characteristics, such as gender or race. It is supported by a clear methodology that embraces transparency, equality and fairness for all candidates.

By recruiting on a competitive basis, Ambatovy aims to select the best candidate for each job. While our goal is to boost local access to jobs, our policy is to offer positions to the best qualified candidate based on employment-related indicators. Our human resources policies state that we value all talents and that all positions, including technical positions, are open to men and women. Our maternity policy helps ensure that we attract and retain top female talent, while promoting the health of employees and their children.

Our goal is to have a workplace free of discrimination and harassment. The Ambatovy Employee Handbook encourages employees to report any instances of harassment to their superior, their employee representative and/or the Human Resources Department. This Department is responsible for undertaking investigations and mediation to address any allegations. Employees are guaranteed confidentiality and protection from retaliation.



C5.4 Freedom of Association and Collective Bargaining

A collective bargaining agreement is currently under negotiation with employee representatives. For more information, see section C4.3 Labour-Management Relations.

C5.5 Child Labour

Ambatovy policy is not to hire anyone under the age of 18. We also make efforts to educate our employees and the communities around us with a view to the eradication of child prostitution.

C5.6 Security Practices

Policies are currently being drafted with the intention of signing on to the Voluntary Principles on Security and Human Rights in 2012. In the meantime, 2011 will be a preparatory year, including conducting the first training for the Security Department on these principles and educating security personnel on how to deal with situations where human rights abuses could occur.



PRODUCT RESPONSIBILITY TARGETS

2010 Targets for Product Responsibility

Prepare our internal processes so that we are able to provide comprehensive product information and labelling once in production.

Plan and commence steps to gain necessary and voluntary certifications such as ISO 9001.

Put in place quality control systems to ensure that once in production, our products meet the needs and expectations of our customers.

Results and Next Steps

🟢 We were on track by 2010 to have comprehensive labelling and information ready for production.

🟡 We are on schedule to complete necessary steps for certification.

🟡 We are on schedule for this target.

🔴 Major challenges encountered 🟡 Challenges en route to resolution 🟢 Good progress made toward goal

C6.1 Management Approach to Product Responsibility

Ambatovy exercises care with regard to the quality of our nickel, cobalt and ammonium sulphate and the information accompanying them. This will ensure that they are fit for their intended purposes and do not pose unintended hazards to the health and safety of our employees, customers or third-party handlers. We also ensure the privacy rights of our customers through our rigorous marketing communications policies. The Ambatovy quality policy states that we are committed to supplying defect-free products and services to all our customers. The policy states that this is achieved by:

- ▶ Understanding the requirements as agreed with our customers
- ▶ Communicating effectively with our customers and suppliers
- ▶ Doing our work correctly the first time
- ▶ Supplying products at standards that meet our customers' needs
- ▶ Practicing effective communications about safety and quality
- ▶ Involving all personnel
- ▶ Continuously improving everything we do
- ▶ Complying with applicable government laws and regulations

Ambatovy is committed to implementing these tactics to deliver on this quality commitment. A practical way to do this is by meeting international product standards. In 2010, Ambatovy began implementing an internal Quality Management System (QMS) and taking steps to be ISO 9001 certified as required by the London Metal Exchange. We are working to create a series of different labels for each product and for each country where our products will be sold, taking into account the different languages, unique safety information and standard formatting for each destination country.

C6.2 Products and Services

We have initiatives to ensure the packaging and transport of our products has a minimal environmental impact and protects the health and safety of those handling them. These include:

- ▶ Ambatovy employees will operate with the latest personal protection equipment during the processing and handling of products and supplies.
- ▶ The wooden pallets used for transportation of the drums of nickel and cobalt will be from Forest Stewardship Council certified sources.
- ▶ When employees and port workers handle the nickel and cobalt, the products will be already packaged.

NICKEL IN THE MODERN WORLD

There are thousands of applications of nickel and many contribute to innovation and sustainability in our daily lives. Nickel's main application is the production of stainless steel, which accounts for approximately two-thirds of worldwide nickel consumption. Stainless steel that contains nickel is extremely strong, resistant to corrosion, long-lasting and flexible enough to be formed into different shapes. Stainless steel using nickel can be found in buildings, medical instruments, aviation and aerospace, cutlery and other household goods and appliances, coins, rechargeable batteries, portable computers and communications technology.

C6. Product Responsibility

C6.3 Customer Health and Safety

All Ambatovy products will be delivered with comprehensive safety data sheets that provide guidelines and recommendations for their safe use and handling. These data sheets conform to international standards.

MATERIALS STEWARDSHIP

Reclaimed Packaging

Optimizing product packaging is an ongoing process as is working with customers to find the best packaging solutions for products. This effort includes locally sourced pallet materials, minimizing packaging containers and developing recycling programs for the packaging materials.

Hazardous Materials and Employee Safety

Ambatovy's production process involves industrial and hazardous materials, such as chemicals and compressed gas. Ambatovy has implemented policies and directives on purchasing, handling, storing and disposing of such items. In addition, the Supply Chain Management Department maintains safety data sheets from suppliers on all hazardous materials and commodities. These data sheets are electronically accessible to employees. Staff are trained in proper handling procedures.

C6.4 Product and Service Labelling

Ambatovy is working to create optimum labelling, which fully complies with relevant rules and regulations, such as the European Commission's Registration, Evaluation, Authorization and Restriction of Chemical Substances (REACH) and Classification, Labelling and Packaging (CLP) regulations in countries of destination. We pay careful attention to safety notices such as hazardous material warnings in accordance with international standards. Our product labels will be ready by the time the Project begins production.

C6.5 Marketing Communications

Ambatovy itself does not have advertising or sponsorship campaigns for nickel, but works with Sherritt, Sumitomo and KORES on promotion and marketing. For cobalt, DMSA is directly responsible for marketing to customers. DMSA has appointed International Raw Materials, an American company, as its sole marketer and distributor for ammonium sulphate. Since Ambatovy has not begun production, there are no incidents of non-compliance with voluntary codes or marketing regulations.



FERTILE GROUND

Ammonium sulphate is an inorganic, highly water-soluble salt that is used as an agricultural fertilizer. It lowers soil pH and provides two major plant nutrients, nitrogen and sulphur. While ammonium sulphate is an excellent crop fertilizer, it should be used as part of a complete agronomic improvement plan. For maximum effect, phosphorous and potassium should be applied in conjunction with ammonium sulphate.

C6.6 Customer Privacy

Ambatovy has received no complaints regarding breaches of customer privacy or loss of data.

ALL ABOUT COBALT

For centuries, cobalt has been used to add vivid blues to glass, glazes and pottery. It is now used in hundreds of chemical, metallurgical and industrial products, including high-temperature, wear-resistant super alloys, catalysts, pigments and electronics (particularly rechargeable batteries). Cobalt also has properties particularly useful in electromagnetic recording devices and for making magnetic metal alloys for electric motors and generators.

Local Communities

The support, cooperation and well-being of the local communities in which we operate are at the heart of Ambatovy's stakeholder engagement policy. We understand that the individuals who make up these communities are the very people who can be most impacted by the Project and they are therefore important to us. The communities around our sites are represented by individuals, leaders and local associations and our interactions take on a variety of forms. For example, we meet regularly with the *tangalamena*, or local elders, from project-affected communities. Our CSR field agents conduct regular visits to Project-Affected Persons (PAPs), particularly those from the resettlement villages. In 2010, we initiated steps to work with local and regional coordination committees in Moramanga and Toamasina, which are comprised of local authorities and community leaders.

Civil Society

Ambatovy is pleased to partner with a number of civil society organizations to build strong community relations and support the development of the communities in which we work. These organizations may receive technical or financial assistance, provide technical expertise or facilitate effective communication with local communities. See Annex 2 for a complete list of these partners.

Government and Regulatory Bodies

Compliance with regulatory requirements and best practices in the mining sector is fundamental to success. We strive to have an open and transparent relationship with the Government of Madagascar and the regulatory bodies that oversee our construction and operations. We meet with relevant ministries and authorities on national, regional and local levels. For example, we regularly meet with and report to the National Environment Office (ONE) and the Large-Scale Mining Investments Committee. In addition, we consult mayors and other local representatives of the communities where we work. Finally, we work in cooperation with international voluntary oversight bodies, such as the Business Biodiversity Offsets Program (BBOP) and the Extractive Industries Transparency Initiative (EITI).

Media

We recognize the importance of disseminating clear and timely information about our activities. We endeavour to be open and consistent with the media, providing accurate information both nationally and internationally. We work with local media outlets to ensure transparent, effective and widespread communication. To cite one important example, we have worked with the media to communicate safety procedures around Project sites to the general public. Ambatovy also regularly issues press releases and newsletters and offers tours to foreign and national journalists.

Financial Community

The financial community plays an integral role in supporting our operation. Critical financial stakeholders include the Project partners and lending institutions. Ambatovy received the largest-ever project financing in sub-Saharan Africa, involving a consortium of 14 lenders. This consortium is comprised of government-sponsored export credit agencies, international development and commercial banks. In addition, we communicate through the Project partners to financial and industry analysts who assess commodity markets. We communicate with these stakeholders through a number of channels, such as quarterly releases, regular meetings and conference calls.

Business Community

Ambatovy is a member of a supply chain and our suppliers and customers are integral stakeholders. While our suppliers come from around the world, as a part of our commitment to the sustainable development of Madagascar, we endeavour to select local producers and suppliers whenever possible. ALBI sources from and offers technical support to local enterprises. This has resulted in local enterprises supplying a range of goods, such as employee uniforms, cafeteria produce and pallets for product transportation. Finally, we engage regularly with the business community in Madagascar. We are a member of the Chamber of Mines of Madagascar as well as the Madagascar Business Association (*Groupement des Entreprises de Madagascar, GEM*) and the Madagascar Industries Union (*Syndicat des Industries de Madagascar, SIM*).

Workforce and Contractors

Ambatovy is committed to maximizing national employment and developing a skilled local workforce. Thousands of Malagasy employees at the Project have received construction, technical and administrative training. Investing in such programs ensures that they will be able to assume roles with increased responsibilities during the operations phase. The partnerships we maintain with local technical schools assure capacity-building for the Project workforce and also for the wider local population. Furthermore, Ambatovy employees are held to a code of conduct that governs behaviour both on and off the worksite to promote a positive impact from the interaction of our staff with local communities.

Annex 2: Partnerships

Ambatovy is working with a number of local, national and international organizations to ensure transparency, create opportunities and develop sustainable interventions. These partners include:

International

- ▶ Conservation International (CI)
- ▶ Henry Doorly Zoo
- ▶ Human Network International (HNI)
- ▶ Missouri Botanical Garden (MBG)
- ▶ Population Services International (PSI)
- ▶ Project C.U.R.E.
- ▶ United Nations Children's Fund (UNICEF)
- ▶ World Conservation Society (WCS)

National

- ▶ *Action et Développement*
- ▶ *Association Nationale d'Actions Environnementales (ANAE)*
- ▶ *Association Handicaps Esperance Tamatave*
- ▶ *Association Mitsinjo*
- ▶ *Brickaville Miara-Mitraka (BRIMIMI)*
- ▶ *Centre d'Études et de Recherches Ethnologiques et Linguistiques (CEREL)*
- ▶ *Centre National de Recherches Océanographiques (CNRO)*
- ▶ *Centre National de Recherche sur l'Environnement (CNRE)*
- ▶ *Centre Technique Horticole de Tamatave (CTHT)*
- ▶ *Circonscription de l'Environnement et des Forêts (CIREF)*
- ▶ *Direction Régionale de l'Environnement et des Forêts (DREF)*
- ▶ *Ezaka ho Fampandrosoana any Ambanivohitra (EFA)*
- ▶ *Fifanampiana Kristiana ho an'ny Fampandrosoana eto Madagasikara (FI.KRI.FA.MA)*
- ▶ *Fianakaviana Sambatra (FISA)*
- ▶ *Group d'Étude et de Recherche sur les Primates (GERP)*
- ▶ *Groupe MAVITRIKA – University of Toamasina*
- ▶ *Man and the Environment (MATE)*
- ▶ *Ny Sahy*
- ▶ *Organe de Développement du Diocèse de Toamasina (ODDIT)*
- ▶ *Ombona Tahiry Ifampisamborana Vola (OTIV)*
- ▶ *Sampan'Asa momba Fampandrosoana/Fiangonan'i Jesoa Kristy eto Madagascar (SAF/FJKM)*
- ▶ St. Gabriel
- ▶ University of Antananarivo
- ▶ *Vahatra*

Mine Site Priority Species (terrestrial fauna)

The priority species across all taxonomic groups are listed in Table 3.1 of the BMP. The highest priority species are those that may be locally endemic to the mine area and to the Moramanga region. These include:

- ▶ ***Liophidium sp. nov. 1.*** (unnamed snake) only sampled in 1997 and of uncertain taxonomy. The location sampled is number 68, taken at the mine site in the South Analamay azonal forest. This is a genus of diurnal snake with seven species described and others that have not been described.
- ▶ Colonies of ***Pilotrochus besmerus*** (Myrimicinae Ant) have been found in a transitional forest near the western edge of the Analamay azonal conservation area (site number two). This species is only known in the Moramanga area.
- ▶ ***Platipelys sp.*** (unnamed arboreal frog) has been salvaged from the forest of Ambatovy/Analamay and is being identified by partner organizations. Many species of this genus are very localized and therefore this may represent a species endemic to the mine and surrounding areas.
- ▶ ***Propithecus diadema diadema*** (Diademmed Sifaka Lemur) has been spotted in logged areas, azonal thicket and transitional forest (T1, T4) in or near the Analamay and Ambatovy azonal conservation areas as well as in the Torotorofotsy Wetlands (T6).
- ▶ ***Sarothrura watersii*** (Slender-billed Fluff Tail) was observed in the Torotorofotsy Wetlands and was known to exist in only one other wetland in Madagascar. However, this species is now known from three other regional localities.
- ▶ ***Tyto soumagnei*** (Madagascar Red Owl) has been seen in the forest in the area of the Ambatovy mine.
- ▶ ***Varecia variegata*** (Black and White Ruffed Lemur) has been observed in the conservation zones, although infrequently. This species is patchily distributed in lowland to mid-altitude rainforests along the eastern coast. It is, however, common at the Ankerana offset site.

IUCN Endangered or Critically Endangered Species

The next level of priority relates to species that, while more widely distributed in Madagascar, are listed by the International Union for Conservation of Nature (IUCN) as endangered or critically endangered. These include two frogs, one gecko, one small mammal, four birds and four lemurs.

- ▶ ***Anas melleri*** (Meller's Duck) and ***Ardea humbloti*** (Madagascar Heron) have also been seen in the Torotorofotsy Wetlands.
- ▶ ***Indri indri*** (Indri) has been observed in the azonal forest, azonal thicket and transitional forest in or near the Ambatovy and Analamay azonal conservation areas (T1, T4 and T5) or near these areas.
- ▶ ***Mantella aurantiaca*** and ***Mantella crocea*** (Golden Mantella Frog) have been found in azonal vegetation at Analamay and also in the Torotorofotsy Wetlands.
- ▶ ***Microgale jobihely*** (Northern Shrew Tenrec) was found in both the forested and cleared areas of the mine site, which represents a range extension for the species, previously only known from the Tsaratanana Forest in northern Madagascar.
- ▶ ***Phelsuma pronki*** (a gecko) has been found in both forest and cleared areas in the mine area since 2007. This species is little known except from a few areas of isolated fragments in the eastern rainforest.
- ▶ ***Prolemur simus*** (Greater Bamboo Lemur) has been observed once in the mine area and also along the pipeline area near the Torotorofotsy Wetlands. Ambatovy is part of an international effort to help conserve this critically endangered species.

Annex 4: GRI Indicator Reference Index

PROFILE DISCLOSURE	DESCRIPTION	REPORTED	CROSS-REFERENCE
1.1	Statement from the most senior decision-maker of the organization.	Fully	A1
1.2	Description of key impacts, risks, and opportunities.	Fully	B2
2.1	Name of the organization.	Fully	B1
2.2	Primary brands, products, and/or services.	Fully	B1
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	Fully	B1
2.4	Location of organization's headquarters.	Fully	B1
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	Fully	B1
2.6	Nature of ownership and legal form.	Fully	B3.2
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Fully	B1
2.8	Scale of the reporting organization.	Fully	B1
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	Fully	A2
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	Fully	A2
3.3	Reporting cycle (annual, biennial, etc.).	Fully	A2
3.4	Contact point for questions regarding the report or its contents.	Fully	A2
3.5	Process for defining report content.	Fully	A2
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	Fully	A2
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	Fully	A2
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	Fully	A2
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	Partially	A2
3.12	Table identifying the location of the Standard Disclosures in the report.	Fully	Annex 4
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	Fully	B3.2
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	Fully	B3.2
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	Partially	B3.2
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	Partially	B3.2
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	Partially	B3.2
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Fully	B3.2
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	Fully	B3.1, C4.3, C5.2
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	Fully	B4.1, B4.2
4.14	List of stakeholder groups engaged by the organization.	Fully	B3.3, Annex 1
4.15	Basis for identification and selection of stakeholders with whom to engage.	Fully	B3.3
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Fully	B3.3
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	Fully	B3.4
DMA EC	Disclosure on Management Approach – Economic Performance	Fully	C2.1
DMA EN	Disclosure on Management Approach – Environmental Performance	Fully	C1.1
DMA LA	Disclosure on Management Approach – Labour Practices & Decent Work Performance	Fully	C4.1
DMA HR	Disclosure on Management Approach – Human Rights Performance	Fully	C5.1
DMA SO	Disclosure on Management Approach – Social Performance	Fully	C3.1
DMA PR	Disclosure on Management Approach – Product Responsibility Performance	Fully	C6.1
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	Partially	C2.2
EC3	Coverage of the organization's defined benefit plan obligations.	Partially	C2.2
EC4	Significant financial assistance received from government.	Fully	C2.2
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	Partially	C2.3
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	Partially	C2.3
EC7	Procedures for local hiring and proportion of senior management and workforce hired from the local community at significant locations of operation.	Partially	C2.3, C4.2
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	Fully	C2.4
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	Fully	C2.4

Annex 4: GRI Indicator Reference Index

PROFILE DISCLOSURE	DESCRIPTION	REPORTED	CROSS-REFERENCE
EN1	Materials used by weight or volume.	Fully	C1.7, C1.3, C1.4
EN3	Direct energy consumption by primary energy source.	Fully	C1.6
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Fully	C1.6
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	Partially	C1.6
EN8	Total water withdrawal by source.	Fully	C1.3
EN9	Water sources significantly affected by withdrawal of water.	Fully	C1.3
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Fully	B1, C1.2
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Fully	C1.2
MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated.	Fully	B1, C1.2
EN13	Habitats protected or restored.	Fully	C1.2
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	Fully	C1.2
MM2	The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place.	Fully	C1.2
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	Partially	C1.2, Annex 3
EN16	Total direct and indirect greenhouse gas emissions by weight.	Fully	C1.4
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Fully	C1.4
EN19	Emissions of ozone-depleting substances by weight.	Fully	C1.4
EN20	NOx, SOx, and other significant air emissions by type and weight.	Partially	C1.4
EN21	Total water discharge by quality and destination.	Partially	C1.3, C1.4
EN22	Total weight of waste by type and disposal method.	Partially	C1.4
MM3	Total amounts of overburden, rock, tailings, and sludges and their associated risks.	Partially	C1.4
EN23	Total number and volume of significant spills.	Fully	C1.4
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	Fully	C1.1
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	Fully	C1.8
LA1	Total workforce by employment type, employment contract, and region.	Partially	C4.2
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	Partially	C4.2
LA4	Percentage of employees covered by collective bargaining agreements.	Fully	C4.3
MM4	Number of strikes and lock-outs exceeding one week's duration, by country.	Fully	C4.3
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	Fully	C4.4
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Fully	C3.3, C4.4
LA10	Average hours of training per year per employee by employee category.	Partially	C4.5
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	Fully	C4.3, C4.5
LA14	Ratio of basic salary of men to women by employee category.	Fully	C4.6
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	Partially	C5.2
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Partially	C5.2
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	Fully	C5.6
SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	Fully	C3
MM7	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples, and the outcomes.	Fully	B3.4
MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process.	Fully	C3.2
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	Partially	C1.1
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	Fully	C6.4
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	Fully	C6.5
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	Fully	C6.6

Annex 5: Acronyms

ALBI	Ambatovy Local Business Initiative
AIDE	Assistance Initiative for Demobilized Employees
AMSA	Ambatovy Minerals, S.A.
ATC	Agricultural Training Centre
BBOP	Business and Biodiversity Offsets Program
BMP	Biodiversity Management Plan
BRMO	Manpower Redeployment Office (<i>Bureau de Redéploiement de la Main d'Œuvre</i>)
CA	Purchasing Centre (<i>Centrales d'Achats</i>)
CAZ	Ankeniheny-Zahamena Corridor (<i>Couloir Ankeniheny Zahamena</i>)
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLP	Classification, Labelling and Packaging
CR	Critically Endangered
CPRS	Contract for School Success Program (<i>Contrat Programme de la Réussite Scolaire</i>)
CSR	Corporate Social Responsibility
DMSA	Dynatec Madagascar, S.A.
EITI	Extractive Industries Transparency Initiative
EMP	Environmental Management Plan
EMS	Environmental Management System
EN	Endangered
EPCM	Engineering, Procurement and Construction Manager
ESIA	Environmental and Social Impact Assessment
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
ICMM	International Council on Mining and Minerals
IFC	International Finance Corporation
IUCN	International Union for Conservation of Nature
LGIM	Large Mining Investment Act (<i>Loi sur les Grands Investissements Miniers</i>)
MECIE	Investment and Environment Compatibility Act (<i>Mise en Compatibilité des Investissements avec l'Environnement</i>)
NGO	Non-Governmental Organization
OG	Operations Group
OHSAS	Occupational Health and Safety Assessment Series
ONE	National Environment Office (<i>Office National pour l'Environnement</i>)
PAP	Project-Affected Person
PGEDS	Environmental and Social Development Plan (<i>Plan de Gestion Environnemental et Développement Social</i>)
REACH	Registration, Evaluation, Authorization and Restriction of Chemical Substances
ROW	Right-of-Way
SCM	Supply Chain Management
SMME	Small, Micro and Medium Enterprises
SOC	Species of Concern
TSS	Total Suspended Solids
WHO	World Health Organization

Note: we have chosen to use the French acronym, whenever possible, for consistency across publications and within our own communications. The English translation is provided when necessary.

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