







# Tampakan Project Sustainability Report 2010



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### About Xstrata plc

Peru, the Philippines and the United States. Its operations and projects are administered through a regional divisional management structure, which ensures that critical decisions are taken close to the related businesses. Xstrata Copper also has a recycling business (Xstrata Recycling) with plants in the United States and offices in Canada and Asia.

# About the Tampakan Copper-Gold Project

The Tampakan Copper-Gold Project is located on the southern Philippine island of Mindanao, approximately 40 kilometers north of General Santos City. The Project is situated on the boundaries of four provinces: South Cotabato, Sarangani, Sultan Kudarat and Davao del Sur, and represents one of the world's largest undeveloped copper-gold deposits.

The Tampakan Project is a 2.4 billion metric ton deposit, containing 13.5 million metric tons of copper and 15.8 million ounces of gold at a 0.3 % cut-off grade.

The Project is operated by Philippine-based affiliate Sagittarius Mines, Inc. (SMI), whose 40% controlling equity is a joint venture between Xstrata Copper (62.5%) and Indophil Resources NL (37.5%). The 60% non-controlling equity shareholders of SMI are the Tampakan Mining Corporation and Southcot Mining Corporation (known as the Tampakan Group of Companies).

SMI submitted the Mining Project Feasibility Study for the Tampakan Project to the Philippine government in April 2010 and is progressing with the Mine and Off-site Environmental Impact Assessments (EIAs). SMI expects to submit the Mine Environmental Impact Statement (EIS) to the government by the second half of 2011.

In December 2010, the Project employed 372 employees and 1,185 contractors.

The Tampakan Project is managed by Xstrata Copper and adheres to the Xstrata Group's industry-leading Sustainable Development (SD) Policy and Standards, Business Principles, Code of Conduct and Policy on Bribery, Fraud and Corruption.











# Executive General Manager's message

Xstrata Copper's Asia Pacific projects made significant progress in 2010, achieving a number of important milestones.

The strong recovery in global demand for copper in 2010, together with robust copper prices, enabled Xstrata Copper to finish the year with a solid set of operational and financial results. The business was well positioned to take advantage of these favorable economic conditions as a result of the actions taken by our management teams during 2009 in response to the global financial crisis, including prudent cost reductions in the context of an unwavering focus on sustainable development and on our growth strategy.

Xstrata Copper's commitment to sustainable development remained firm in 2010 and was reflected in the 22 national and regional awards presented to our sites during the year for excellence in this field. At the Group level, Xstrata retained its position as Mining Sector Leader on the Dow Jones Sustainability Index in 2010/11, for the fourth consecutive year, and was named as the Super Sector Leader for Basic Resources industries.

As part of the Xstrata Group, the principles of sustainable development are integral to our business model and guide our daily decision-making. We take a systematic approach to setting targets, monitoring

performance and reporting, both internally and externally, against our sustainable development policy, standards and targets.

Throughout the year, our sustainable development performance was closely monitored and evaluated by the Xstrata Copper Sustainable Development Committee. Our sites also participated in a range of internal and external audits to provide assurance against the sustainability standards of Xstrata Copper and those of the Xstrata Group

Following an annual review of our management policies, we launched an integrated Xstrata Copper Sustainable Development Policy in May which: strengthened our published position on human rights; improved the alignment between the policy objectives of the Xstrata Group, Xstrata Copper and our operations; and simplified our overall sustainable development framework.

Due to the significant advancement of our project development pipeline, in early 2010 Xstrata Copper restructured the organization of our project development activities to capitalize on our regional synergies in South America and Asia Pacific. Under the new structure, Executive General Manager – Project Development South America, Bob Drabik, assumed responsibility for the development our Antapaccay, Las Bambas and El Pachón projects in Peru and Argentina. As Executive General Manager-Project Development Asia Pacific, I retained responsibility for the Tampakan project in the Philippines and Frieda River project in Papua New Guinea.

Our Asia Pacific projects made significant progress in 2010, achieving a number of important milestones. In April, the Tampakan project submitted its Mining Project Feasibility Study to the Philippine government. The project also completed its mine site Environmental Impact Assessment (EIA) in December, for public consultation and submission during 2011. In addition, the project commenced the EIA process for its off-site infrastructure, including the port, power station, filter plant, transmission lines and pipelines, in the second half of the year.

The Frieda River project delivered its pre-feasibility study in October 2010 and commenced a drilling program and technical



studies for a feasibility study which is scheduled for completion in January 2012. The project also continued to undertake extensive environmental baseline studies and stakeholder engagement activities for its ESIA which is scheduled for completion in 2011.

The health and well-being of our employees, contractors and visitors continued to be a key priority for the Asia Pacific projects throughout the year. In 2010, the projects achieved their Lost Time Injury Frequency Rate (LTIFR) target of <1.1, recording a result of 0.2. Unfortunately, the projects' Total Recordable Injury Frequency Rate (TRIFR) of 1.8 was above their target of <1.3 as a result of three injury incidents at Frieda River where employees were placed on restricted duties as a precautionary measure. The projects' Disabling Injury Severity Rate (DISR) of 41 was also above the 2010 targets of <12.4 due to a disabling foot injury, requiring a lengthy recovery period, sustained by a drill rig assistant at the Tampakan project.

During the year, the projects progressively introduced 'positive performance indicators' to monitor their safety performance, including targets for workplace observations of high hazard activities; percentage compliance with site audits of critical risks; and improved tracking of actions and recommendations from incident investigations. This proactive approach builds on our strong culture of incident reporting and further supports our ultimate goal of achieving injury free, safe work environments

In the area of environmental management, the Frieda River and Tampakan projects met their target of zero Category 3 (significant) environmental incidents in 2010, while their continued reporting of Category 1 (negligible ) environmental incidents during the year was a positive reflection of the strong environmental consciousness across the sites.

Xstrata Copper recognizes the importance of increasing the eco-efficiency of our operations and both the Tampakan and Frieda River projects sought to minimize their impact on the natural environment throughout the year. Although both projects are low energy consumers, they continued to take steps to reduce their green house gas emissions, and increase energy and water efficiencies

wherever possible. In addition, both projects continued to consider these factors in the long term through their designs and plans for our proposed operations.

During the year, the projects maintained their focus on environmental baseline monitoring to support their respective EIA processes. Of note was the terrestrial biodiversity survey undertaken by the Frieda River project, the largest survey of its kind to be conducted within the Sepik River catchment area. In addition, the Tampakan project's baseline study of Lake Buluan was the first study of its kind to be undertaken in relation to this significant downstream water resource. Both projects continue to share these study results with national and provincial government authorities to support biodiversity management in the region.

In 2010, Xstrata Copper invested over US\$32 million in global Corporate Social Involvement projects, primarily in the areas of social and community development, education, health and art and culture. Of this, US\$3.4 million was invested in CSI initiatives at the Tampakan and Frieda River projects. These programs were developed in consultation with local communities, and in many cases implemented in partnership with local stakeholder groups.

Throughout the year, our projects continued to engage closely with local communities on a range of issues related to our proposed mining operations. It was encouraging to see more than 1,000 Tampakan project stakeholders attend public scoping meetings in November as part of the EIA process for the project's off-site infrastructure plans. The level of attendance indicates strong support for the project's public consultation and engagement activities which will continue to be a priority throughout 2011.

At the Frieda River project, the team worked with senior community leaders, anthropologists and land law experts to complete an extensive 12 month land investigation process, collating 40 years of formal records on land ownership and 200 years of oral history in the project area. The next stage in this process will be to develop appropriate models for the recognition, engagement and representation of legitimate landowners in decision-making regarding the proposed project development.

In 2011, we will continue to focus on progressing our drilling programs, engineering studies and EIA activities for the Tampakan and Frieda River projects. We remain committed to advancing these projects in a responsible manner and to achieving further improvements across all areas of sustainable development.

Each year, Xstrata Copper publishes sustainability reports for our managed operations and development projects in line with the globally recognized GRI G3 reporting guidelines. These reports disclose our operations' economic, safety, environmental, and social performance for the year and enable our stakeholders to compare our performance against our annual targets and to track our performance over time. This report is one of 11 Sustainability Reports published by Xstrata Copper on our sustainable development performance for 2010.

Xstrata Copper also produces a quarterly Sustainability Bulletin that highlights best practice case studies from across our operations. Both the bulletin and our sustainability reports can be accessed via our website www.xstratacopper.com and I encourage you to visit this site regularly for further information on our operations.

I hope that you find this sustainability report, and our other publications, interesting and informative and we look forward to keeping you updated on our progress in the year ahead.

Regards

Peter Forrestal Executive General Manager Project Development Asia Pacific

# General Manager's message

Xstrata Copper is committed to developing a financially successful project that improves the social and economic prosperity of the region for future generations.

I am delighted to present the Tampakan Project's Sustainability Report for 2010, our fourth annual Sustainability Report. This report features Sagittarius Mines Inc.'s (SMI) Sustainable Development (SD) performance for this past year, as well as the challenges we faced and the milestones achieved by the Project.

In 2010, we have made solid progress on many of our key milestones, making this a very significant year for the Project. This progress has been underpinned by responsible partnerships with our stakeholders.

Key areas of advancement included resettlement activities and indigenous peoples' consent, land management, the development of three major information technology (IT) projects; and the strengthening of solid relationships with the incoming local and national government officials after the Presidential and local elections.

The year also saw a significant improvement in our drilling performance, which demanded seamless coordination with a number of internal departments.

In April, the Mining Project Feasibility Study was submitted to the Mines and Geosciences Bureau (MGB) and liaison was subsequently undertaken with them to explain various aspects of the Study, to aid their evaluation.

Environmental Impact Assessments (EIAs) have commenced for the Project's off-site infrastructure demands, including a power plant, port facilities, power transmission lines and concentrate pipeline.

In line with this, four public scoping meetings and seventy-two private consultation meetings with key stakeholder groups were conducted between August and December 2010. The level of attendance was very encouraging, as it shows strong support for the process.

In December 2010, SMI completed the comprehensive technical studies in relation to the EIA for the proposed mining operations. We expect to finalize and submit results of the EIAs for the proposed mining operations and the off-site infrastructure to the government, and communicate the results to host communities, in 2011 and 2012.

While exploring the potential development of this resource, ethics underpin our responsible actions. When engaging with indigenous peoples (IPs) and other directly affected people, SMI fosters full respect for their

dignity, human rights, aspirations, cultures and natural resource-based livelihoods. SMI's policy is to avoid the need for resettlement, however, where resettlement is required, we will adhere to national laws and international standards, including the International Finance Corporation (IFC) guidelines on Involuntary Resettlement. We have already commenced consultation with communities regarding resettlement. We are also committed to securing Free and Prior Informed Consent (FPIC) from the indigenous peoples prior to any resettlement taking place.

#### Delivering social benefits

The Project has the potential to provide the opportunity for a step-change toward sustainable social-economic growth for southern Mindanao. If approved, the Project would generate significant economic benefits that would stimulate the local, regional and national economies.

Even though the Project is not yet approved, SMI is already making a difference. In 2010, we invested PhP135 million (USD3 million) as part of our Corporate Social Involvement (CSI) initiatives, which includes education, health, livelihood and enterprise-building programs. These programs have provided real and long-term benefits to our host communities. (Please refer to page 32 for more on this.)

Key highlights of our CSI initiatives include:

- About 12,000 community members have benefited from improved delivery of basic health services, which included investing in health workers' training, intensifying health education in the areas of maternal and child care, primary health care and environmental sanitation, undertaking medical and dental missions, and facilitating PhilHealth (health insurance) enrollment of community members to increase their access to basic health services
- Around 19,000 students have benefited from SMI's educational support, especially in the form of tuition fees, other school fees and monthly allowances. Also, some teachers' salaries were funded by SMI as part of our support to improve learning systems in the Project area
- Approximately 2,000 households in our host communities have also benefited from our Livelihood and Enterprise Development Program.

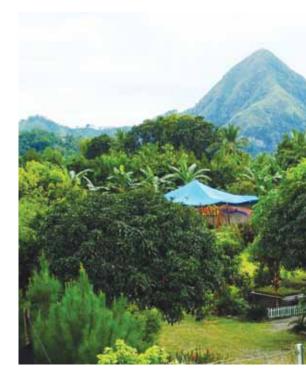
We have also strengthened our stakeholder engagement program by actively involving the community via our grievance mechanism. Of the 38 complaints filed in 2010, 89% have been resolved, only three are left for settlement and one case has been withdrawn.

#### Safety and Health

In 2010, the Tampakan Project achieved its Total Recordable Injury Frequency Rate (TRIFR) and Lost Time Injury Frequency Rate (LTIFR) targets of <3.4 and >0.9 respectively, reporting a TRIFR of 1.3 and LTIFR of 0.26. Unfortunately, the Project did not achieve its Disabling Injury Severity Rate (DISR) target of <2.9, due to an incident on 26 February involving a drill rig assistant who injured his left foot, resulting in an extended period of assignment to restricted duties. (Please refer to page 28 for more on this.)

Our key priority for the past year has been to build the safety measures introduced in 2009, notably:

 A comprehensive roll-out of a Behavioral Based Workplace Observation (BBWO) system to maintain a high level of awareness among employees and contractors of safe behavior in the work place



- A program of safety-related training in the community, to encourage safe behavior in the home environment
- A thorough review of SMI's safety requirements for vehicles and drivers as a result of the increasing reliance on rental vehicles for transport.

#### **Environment**

SMI takes its environmental responsibilities very seriously and has invested significant resources to responsibly plan all stages of the Project to mitigate any potential impacts of

Comprehensive studies, conducted by international consultants in collaboration with Filipino environmental specialists, have established a common body of work from which two documents have been developed; the EIS and the Environmental and Social Impact Assessment (ESIA).

The EIS has been developed to address the regulatory requirements of the Philippines, while the ESIA has been prepared to demonstrate that assessments of the environmental and social impacts have been conducted in alignment with relevant international standards.

While the EIS is the primary document designed to meet our regulatory requirements, the ESIA was voluntarily developed to meet the expectations of SMI's shareholders.

The technical studies completed in 2010 in relation to the mining operation included:

- Mine closure and rehabilitation
- Water resources



- Mine waste management
- Terrestrial and aquatic ecology
- Noise and vibration
- Social impact assessment
- Visual amenity
- Climate and meteorology
- Economic benefits
- Social benefits.

In 2010, there were no environmental penalties or fines recorded. The Project also did not record any Category 3 (significant), 4 (serious) or 5 (disastrous) environmental incidents. (Please refer to page 38 for more on this.)

Also in 2010, we improved our score in our Environmental Management System (EMS) audit, from 83% in 2009 to 93.4%.

#### Challenges

2010 was not without its challenges. Safety, social acceptability and security are three areas in which we must increase our focus.

Firstly, it is paramount we continue to work hard at our safety performance. We need to re-focus and regain our industry-leading performance by achieving our goal of Zero Harm. Creating and sustaining an injuryfree, healthy working environment in all our workplaces is our ultimate objective. We will continue to invest in health and safety capacity-building programs within the company and our host communities

Secondly, the approval of the South Cotabato Environment Code in June 2010, which includes a ban on the open pit mining method, was disappointing, given the significant stakeholder support we achieved for this important project. Although not yet resolved, I am confident that through our responsible partnerships, continued dialogue and engagement with our key stakeholders, an amicable resolution will be found.

Thirdly, regional security continued to be a challenge for SMI in 2010, resulting in the temporary suspension of field activities on two occasions. The most serious incident occurred in December, when two security guards were injured in a shooting incident by unknown person(s) while on post in Datal Alyong, Tablu, in Tampakan. We take the safety of our employees and contractors very seriously and we continue to closely monitor security in the region. We provide all our workers with regular updates and guidance in relation to security matters and continue to work with key stakeholders to improve security in the region.

For many years, SMI's responsible actions, ethical behavior and commitment to corporate social responsibility has been recognized through various Sustainable Development awards. In 2010, SMI received five Sustainable Development awards, including two Safety Awards, a Forestry Award, an Outstanding Stakeholder Award for our Education Program, and finally, our third Presidential Award, which is the most coveted award in the Philippine Mining Industry.

We are very proud of these achievements and our ongoing commitment in the area of Sustainable Development.

With commitment from our funding shareholders to fund our program of work for 2011, our plans include:

- securing the necessary regulatory approvals and agreements from our host communities and from the local and national governments
- expanding engineering activities (e.g. detailed design of resettlement villages and infrastructure, main access road, expanding camp facilities; and tendering bids for these facilities plus the power plant, leading into construction in 2012)
- drilling of 22,000 meters for geotechnical and sterilization requirements
- securing access to required land via purchase, options to purchase, easements and community land use agreements, for the proposed final mine area, power plant, port facilities, transportation corridors for the power transmission lines and concentrate pipeline, and for resettlement purposes.

While these are all important, achieving our social license for the Project is the priority for

We remain committed to advancing the Tampakan Project in a responsible and sustainable manner and we are looking forward to continuing our collaborative working relationships with our many stakeholders to unlock this Project's potential. It will require the continuation of our whole-hearted commitment and consistent application of our core values and business principles. I am confident that 2011 will be a critical year that SMI can be truly proud of.

The Project is representative of a responsible and genuine partnership between SMI, the communities in which we operate and our national stakeholders and partners. We thank you for your continuing support.

# M Wilmone

Mark Williams General Manager Operations and External Relations Tampakan Copper-Gold Project

# Targets and Scorecard

	Status
•	Attained
•	Attained; 1.3
•	Attained; 0.26
8	Not attained; 53.20
8	Not attained; 4
8	Not attained; 20 per month
0	Attained; 305 per month
•	Attained
•	Attained; Audit score of 81% for all departments
<b>(2)</b>	Ongoing
<b>(2)</b>	Ongoing
<b>/</b>	Attained
	Status
•	Attained
•	Attained
•	Attained; Vaccination of employees to current health risk exposure on Hepatitis B and flu completed
8	Cancelled
•	Attained
•	Attained
	Status
<b>→</b>	Ongoing conduct of an extensive stakeholder communication and engagement program (refer to page 33)
·	
<b>(2)</b>	Ongoing (refer to page 34)
<b>(2)</b>	Ongoing
8	Postponed, to be taken up in 2011
<b>(2)</b>	Ongoing implementation of Institutional Development and Education and Community Health Support programs (refer to page 32)
•	Development and Education and Community

attained

ongoing

⊗ not attained/cancelled/postponed

n/a = not applicable



The Part of the Pa		
Community Environmental Sustainability		Status
Implement a reforestation program in partnership with Local Government Units (LGUs) and community-based organizations	•	Attained; 102,338 trees planted and distributed during the year, involving 118 stakeholder groups
Sustainability Management System		Status
Institutionalize a community engagement management system across the business to ensure the continuous improvement of policies and procedures throughout the different phases of mining operation	<b>(2)</b>	Ongoing implementation of various initiatives to address continuous improvement of SMI Community Policies and Procedures (refer to page 34)
Monitor stakeholder perceptions and lead in the development of strategic initiatives to popularize the leading-edge practices in corporate-community sustainability across the business	0	Ongoing; Conducted Public Perception Surveys in June and December 2010; initiated groundwork for the development of multi-sector monitoring teams in Regions XI and XII
2010 Environment Targets		Status
2010 Environment Targets  Undertake carbon cost impact assessment for project feasibility analysis	<b>S</b>	Status  Attained; Air Quality and Greenhouse Gases (GHG) chapter for the ESIA has been finalized
	<b>⊘</b>	Attained; Air Quality and Greenhouse Gases
Undertake carbon cost impact assessment for project feasibility analysis		Attained; Air Quality and Greenhouse Gases (GHG) chapter for the ESIA has been finalized
Undertake carbon cost impact assessment for project feasibility analysis  No Category 3, 4 or 5 environmental incidents or fines, penalties or prosecutions	•	Attained; Air Quality and Greenhouse Gases (GHG) chapter for the ESIA has been finalized Attained
Undertake carbon cost impact assessment for project feasibility analysis  No Category 3, 4 or 5 environmental incidents or fines, penalties or prosecutions  Develop a Waste Management Plan  Complete the mine site Environmental and Social Impact Assessment process, including the	<b>S</b>	Attained; Air Quality and Greenhouse Gases (GHG) chapter for the ESIA has been finalized Attained Attained Ongoing; technical studies and internal sign-off
Undertake carbon cost impact assessment for project feasibility analysis  No Category 3, 4 or 5 environmental incidents or fines, penalties or prosecutions  Develop a Waste Management Plan  Complete the mine site Environmental and Social Impact Assessment process, including the public consultation process  Identify and integrate key Health, Safety, Environment and Community (HSEC) systems (Incident	<b>S</b>	Attained; Air Quality and Greenhouse Gases (GHG) chapter for the ESIA has been finalized Attained Attained Ongoing; technical studies and internal sign-off process completed Attained; Incident, Audit and Risk Standards

attained

ongoing

⊗ not attained/cancelled/postponed

Construct Community Information Centre and expand the existing Field Trial Research Station

n/a = not applicable

Ongoing; Construction will commence in mid-2011

#### 2011 Safety Targets

Reduce vehicle accidents (damage to vehicles and/or injury to people) by 25% on 2010 figures

Conduct safety awareness training in nine barangays and six elementary schools within the Project area

TRIFR <1.0

DISR < 2.5

#### 2011 Health Targets

Zero occupational illnesses

Achieve 25% training of SMI employees in basic First Aid

Zero new Hepatitis B cases

Complete Health Impact Assessment for the proposed Tampakan Copper–Gold Mine

Improve injury and rehabilitation management processes, and ensure compliance of employees and contractors

#### 2011 Community Targets

Conduct Community Consultative Assemblies in the second half of the year as part of the Free and Prior Informed Consent process

Conduct preparatory activities leading to the development of the Resettlement Action Plan in the fourth quarter of the year

Develop the Social Impact Management Plan

Establish and implement a multi-stakeholder monitoring mechanism in Regions XI and XII

In support of the Millennium Development Goals (MDGs), implement community sustainability programs:

- Education support that will benefit at least 20,000 students
- Community health support, local enterprise development, community infrastructure development and institution-building for community-based organizations that will benefit at least 16,000 households

Address key community issues related to access to the Project Area, to facilitate gaining consent and to prepare for construction activities.

Conduct two Public Perception Surveys

#### 2011 Environment Targets

Improve SMI's 2010 solid waste recycling performance by 10%

Reduce water consumption per employee in all SMI Camps and Offices by 5%

Reduce electricity consumption per employee in all SMI Offices by 5%

No Category 3, 4 or 5 incidents

Reforest 270 hectares by planting 300,000 native seedlings across Regions 11 and 12



# Scope of the report

In line with Xstrata Copper's commitment to transparency and stakeholder engagement, all of its operating divisions and major development projects publish an annual report on their Sustainable Development (SD) performance.

This report provides comprehensive information about the economic, health, safety, environmental and social practices and performance of SMI's Tampakan Project from 1 January 2010 to 31 December 2010.

The report provides a general description of both SMI and Xstrata Copper's SD Policy and how this is reflected in the way we manage our business. The full version of this Policy can be found on SMI's website (www.smi.com.ph).

This is the fourth Sustainability Report published by the Tampakan Project and is one of 11 published this year by Xstrata Copper.

The Xstrata Group also publishes an annual Sustainability Report which includes an overview of Xstrata Copper's SD performance. All these reports are available on the Xstrata Sustainability website (www. xstrata.com/sustainability).

As part of the Xstrata Group, all Xstrata Copper's policies are aligned with Xstrata's SD Policy and 17 SD Standards, and its operations and projects are audited annually, either internally or externally, against these Standards. The Policy and Standards are published on Xstrata's sustainability website.

All data and calculations included in this report were obtained through procedures that are regulated and aligned with measurement models provided by Xstrata. They also take into account technical protocols for indicators set out in the Global Reporting Initiative G3 Guidelines and the Mining and Metals Sector Supplement.

All monetary values are expressed in Philippine pesos and US dollars, at a conversion rate of USD1=PhP45.12 (unless otherwise stated).

#### **Feedback**

If you have any queries or comments about this report, or would like to receive a hard copy, please contact:

John B. Arnaldo E-mail: john.arnaldo@smi.com.ph

### Report distribution

In order to ensure ready access to this report, it is also available online at:

- www.xstratacopper.com
- www.xstrata.com/sustainability
- www.smi.com.ph

### Defining report content

This report highlights specific issues that are material to the Tampakan Project and are related to the economic, environmental and community sustainability of the area in which we operate. In addition, it addresses issues considered material by our stakeholders and that have the potential to become material to the long-term success of our business.

In preparing this report, we have sought to present a view of our sustainability performance that is accurate, clear and balanced.



In identifying issues or topics that are material to the Tampakan Project, we have considered:

- feedback on our sustainability performance from key internal and external stakeholders
- company-specific issues raised directly or indirectly by external stakeholders such as governments, communities, NGOs, investors and the media
- challenges faced by the mining industry, locally and globally, raised in industry associations and forums
- Xstrata Copper's SD Policy and SD Strategy and Management Framework

- Xstrata Group's Business Principles and SD Policy and Standards
- indicators and topics included in the GRI G3 Guidelines, the principles of the International Council on Mining & Metals (ICMM), the GRI Mining and Metals Sector Supplement and other best-practice guidelines and initiatives.

# The Global Reporting Initiative (GRI)

This report was prepared in accordance with the Global Reporting Initiative (GRI) G3 Guidelines, the world's most widely used sustainability reporting framework.

A GRI Index showing how Xstrata Copper has applied the guidelines in this report can be found on page 46 of this report.

# Quality assurance

As part of the external verification of the Xstrata Group's 2010 Sustainability Report, independent auditors Ernst & Young examined the way in which Xstrata compiled its main SD data, figures and/or indicators over the course of the year. The signed assurance statement contains a brief description of this process and is published in Xstrata's 2010 Sustainability Report, which is available on www.xstrata.com.



# Our Sustainable Development strategy and corporate governance

Sustainable development (SD) is at the core of our business strategy.

As a Filipino company with a commitment to the highest standards of SD, we understand that for our organization to be successful and a valuable partner to the communities in which we operate, we must set and comply with world-leading SD standards.

We operate according to the SD Management Framework established by Xstrata Copper, and strive to meet the highest international standards, seeking to balance social, environmental and economic considerations in the management of our business. Similarly, SMI regularly submits its work to internal and external audits to help ensure compliance with our Principles, Policies and Standards.

Our undertakings are clearly established in our SD Policy, which is reviewed annually to ensure it is aligned with our objectives.

We continuously improve our management systems and processes, ensuring efficient use of resources, and the maintenance of safe and healthy workplaces. SMI works in partnership with those who have an interest in or are affected by its activities and, where possible, creates mutual benefits for all.

### SMI's vision and mission statements

SMI's vision is to be a responsible mining organization in partnership with the Filipino people bringing prosperity and improved quality of life in an environmentally and socially sustainable manner.

We will responsibly develop the Tampakan Project. This will be achieved through:

- adherence to our Business Principles
- investment in the skills and growth of our people
- engagement and development of local communities
- robust health, safety and environmental management



- partnering Government at all levels
- investment in infrastructure and processes.

### Our strategic objectives

- Injury-free, safe work environments
- Demonstrated leadership in environmental performance
- Reputation for social responsibility
- Realization of the full potential of our people

- Maximize value from our physical assets
- Cost competitiveness through the cycles
- Value creation through dynamic growth and continuous improvement.

#### Our values

Our decisions and actions will reflect the following values:

- Honesty
- Dependability
- Respect



- Ingenuity
- Courage
- Passion.

### Precautionary approach

SMI takes a precautionary approach to the environmental management of its activities. We use a comprehensive risk-based approach to manage the potential detrimental impacts of our activities. This approach means that, even in the absence of evidence that environmental degradation is occurring or will occur, we take action to mitigate this possibility.

As shown in this report, SMI takes a systematic approach to setting targets, monitoring its performance and reporting (both internally and publicly) on all the key aspects of sustainability. Our SD Strategy and Management Framework interpret and support our SD Policy and the Xstrata Group's SD Policy and 17 SD Standards, and are aligned with our definition of purpose.



Honesty

Dependability

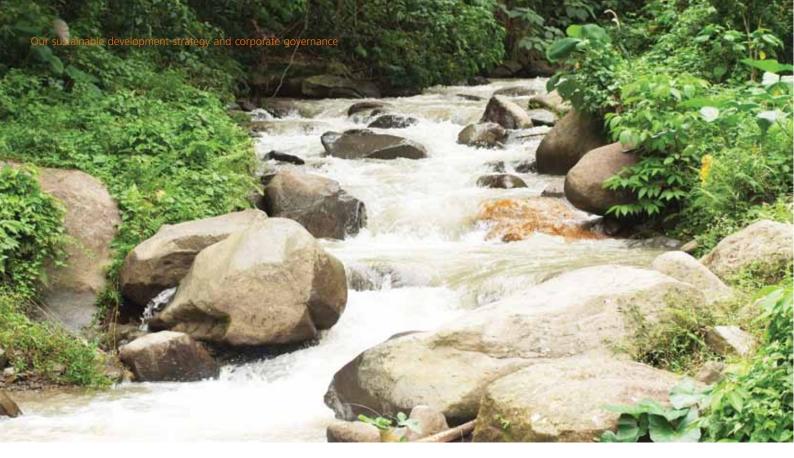
Respect

Confidence

Ingenuity

Courage

**Passion** 



### Key challenges

SMI continues to undertake extensive, open and transparent stakeholder consultation and engagement regarding its plans for the Tampakan Project. Through these activities, the company has received valuable feedback from our stakeholders. This process has identified several key challenges that may affect the success of our business and be relevant to our stakeholders now and in the future. These include:

#### The South Cotabato Environment Code which includes a ban on open pit mining in the province

Extensive technical studies led by international specialists in mining, environmental management and engineering have identified open pit mining as the only feasible method to extract the Tampakan deposit, given the location of the deposit and the geology of the region.

In June 2010, the provincial government of South Cotabato passed the South Cotabato Environment Code into law which includes a ban on the use of open pit mining methods in the province.

Following the passage of the Environment Code, a wide range of stakeholders have called for the review and removal of the proposed open pit mining prohibition. This includes the national government, Regional Development Council XII, Regional Minerals Development Council XII, affected indigenous communities, and municipal and barangay (village) governments.

The national government directed the Department of Environment and Natural Resources (DENR) and the Department of Interior and Local Government (DILG) to lead a dialogue among all parties concerned to reach a mutually-beneficial solution on the open pit ban provision. SMI welcomes such a dialogue and is optimistic there will be a timely resolution to the matter.

While the Environment Code has not directly impacted our Project (as we are still in the approvals phase), we remain concerned about its potential impact and will continue to monitor the issue closely.

SMI remains committed to the principles of SD endorsed by the Environment Code, and believes that open pit mining methods are entirely compatible with these principles, as demonstrated by the leading practices used in all of our major shareholder's open pit mines worldwide.

#### Security

The Tampakan Project is located in a high security risk region. SMI closely works with the host communities, government, and public and private security personnel to address concerns and improve the security situation in the Project area. For more information, refer to page 19 of this report.

#### Artisanal and small-scale mining (ASM)

SMI recognizes the safety, environmental and health hazards posed by artisanal and smallscale mining activities within the Project area.

SMI works closely with key stakeholders, including local authorities and host communities, to address this complex issue. We also conduct education programs promoting awareness of the health, safety and environmental risks associated with illegal small-scale mining practices.

SMI continues to provide employment opportunities for local community members, and supports livelihood and enterprise development programs in the Project area to provide legitimate and sustainable sources of income. The company also regularly monitors the quality of water in the rivers affected by ASM activities. For more information, refer to page 34 of this report.

#### **Equitable sharing of benefits**

Through a partnership with our stakeholders, the Tampakan Project can enable a better future for the people of southern Mindanao and the Philippines. If developed, it will generate significant economic benefits that would stimulate the local, regional and national economies.

SMI is working closely with all relevant authorities to strive for the equitable and balanced distribution of the Project's social and economic benefits. By facilitating local recruitment and training opportunities, local procurement, and the implementation of community development programs, SMI intends to maximize its economic contribution to the local communities.

SMI is currently working with national and local governments to resolve the following issues determining allocation of revenues from the Project:

- The delineation in provincial boundaries, in particular the boundary between South Cotabato and Davao del Sur, which overlaps a large part of the proposed Project development area
- The administrative guidelines, relevant to the Tampakan Project, that would apply to the distribution of excise tax, local business tax and real property tax to applicable local government units.

#### Water Management

SMI understands that access to good quality water is critical to local communities. As part of our planning for the proposed Tampakan Project, we have invested significant resources in understanding the potential impact of our proposed activities on the water needed by the local community, as well as preparing water management strategies to ensure we protect the quality and supply of water in the potentially affected areas.

Our strategies are based on 15 years of monitoring and researching water quality across the Project area to develop a significant quantity of baseline data. We have also partnered with local people who best know the environment to help with conducting this sampling and monitoring work.

Throughout the planning process for the Tampakan Project, we have consulted a large number of stakeholders, including local communities and water users, as well as local, regional and national governments. The feedback from these stakeholders has been incorporated into our mine design plans and mitigation strategies. For more information, refer to page 39 of this report.

#### Mine closure and rehabilitation

SMI recognizes that mine closure and rehabilitation is a key concern for stakeholders, especially the local communities. This is why we are planning for the closure and rehabilitation of the Tampakan Project area before we start developing and operating the proposed mine.

A conceptual Rehabilitation and Mine Closure Plan has been prepared by Philippine and international experts. This plan will undergo regular review over the life of the proposed mine, ensuring it remains current and consistent with community expectations. For more information, refer to page 40 of this report.

#### Free and Prior Informed Consent (FPIC) and resettlement

Before the Project can proceed, we must attain agreement from a number of indigenous cultural communities currently residing within the Project area who require resettlement.

SMI recognizes that any resettlement can have adverse impacts on communities. In undertaking any resettlement, SMI is committed to upholding the principles of the International Finance Corporation's Performance Standards, the international benchmark for resettlement activities.

Applying these principles means any resettlement sites built for affected people must provide improved living conditions for the resettled community. As SMI develops its plans for resettlement, we will be consulting extensively with the affected communities. For more information, refer to page 34 of this report.

#### Awards for sustainable development

SMI's demonstrated commitment to SD continues to be recognized in the Philippines. SMI received its third Presidential Mineral Industry Environmental Award (PMIEA) in November 2010 for the company's industryleading practices at the Tampakan Project. It was a back-to-back win for SMI who was also awarded the PMIEA in 2009. The PMIEA is the highest award given to a mining company in the Philippines for outstanding SD practices. SMI received its first PMIEA in 2006.

In recognition of its outstanding safety practices and in achieving five million man hours without Lost Time Injury (LTI) in January 2010, SMI received two awards in November 2010: the Safest Mine Award (exploration category) from the DENR; and the Award of Distinction from the Safety Organization of the Philippines, Inc. (SOPI).

SMI also received the Best Mining Forestry Program Award (exploration category) from the DENR for its multi-sectoral approach to reforestation involving volunteers from host and neighboring communities. This is the third time SMI has received the award. having previously won in 2006 and 2008.



# Corporate governance and Sustainable Development management system

SMI's Sustainable Development (SD) performance is monitored and evaluated by the SMI SD Committee, which meets monthly. This performance is reported regularly to the Xstrata Copper Executive Committee.



We continuously monitor and report our performance and issues through the SMI Sustainable Development (SD) Committee and, in compliance with the Philippine Environmental Legislation, the Mine Safety and Health Standards of the Mines and Geosciences Bureau (MGB), and the Occupational Safety and Health unit of the Department of Labor and Employment.

The SMI SD Committee formulates and performs periodic reviews and assessments of relevant policies, guidelines and procedures. The SD Committee convenes meetings with representatives of SMI departments, contractors and service suppliers to discuss concerns that affect SD performance.

A major focus in 2010 has been the integration of common SD systems, including

risk, incident, audit and training processes, to streamline these systems and improve implementation by the workforce.

SMI's corporate governance and SD Management Systems adheres to the corporate governance standards set out in Xstrata Copper's Business Principles and SD Management Standards. This approach is further supported by Xstrata Copper's SD

# **Ethics Line**

At SMI, each employee and/or contractor has a responsibility to act ethically and in accordance with Xstrata's Business Principles.

SMI employees and other stakeholders, such as contractors or suppliers, have access to the Xstrata Ethics Line, a confidential facility, operated independently by KPMG, through which they can report any breach of ethics, Xstrata's Business Principles or policies, or the legislation in force. The free call number for the Tampakan Project is 1800 161 10175. The Ethics Line can also be accessed online via www.xstrataethics.com.

Policy and Xstrata's Global Policy on Bribery, Fraud and Corruption, as well as Xstrata Copper's SD Strategy and Management Framework and its own Common Systems in the areas of health, safety, environment, risk management and human resources.

#### Sustainable development assurance

SMI undertakes a series of internal and external assurance activities to guarantee its compliance with the Xstrata Group's SD Policy and Standards and to ensure continuous improvement in this field. This process also ensures SD targets are in place for relevant issues, monitoring systems are robust and reporting is material, accurate and timely.

An independent audit on SMI's Environmental Management System was conducted by Neville-Clark Philippines for Quarter 2 and Quarter 4 of 2010. The audit covered the following areas: incident reporting, corrective action register, team environmental action plan, water management, hydrocarbon and chemical management, waste management and environmental monitoring. SMI received a rating of 93.4% compliance.

### Ethics and transparency

In line with the Xstrata Group's Statement of Business Principles, we are committed to managing our business ethically and transparently, and seek to work in an open and responsible way, both internally and externally.

### Corruption

In accordance with Xstrata's Business Principles, SMI does not offer, solicit or accept any form of inducement or bribe. The internal audit function, supported by KPMG, reflects the ethical performance expectations contained in our Statement of Business Principles and covers identified fraud and compliance risks associated with our key business activities.

Consistent with Xstrata's Global Policy on Bribery, Fraud and Corruption, SMI's Policy on Fraud Control explicitly states the organization will not tolerate any incidence of bribery, fraud or corruption committed by employees or others, either from within or outside the organization, and will take immediate and serious action including dismissal, reporting to police and legal action - against those responsible, irrespective of length of service or position. In addition, it highlights the channels available for employees or others to safely and confidentially report non-transparent behavior that is at odds with ethics and Xstrata's Business Principles.

The Policy covers all SMI full and parttime staff, casual and temporary agency staff and contractors. Each year, SMI employees sign an agreement to comply with the Fraud Control Policy. Contractors and suppliers are also briefed on the Policy.

Sanctions for suppliers found to be involved in corruption includes cancellation or revocation of accreditation with the company.

# Public policy participation and political contributions

Consistent with Xstrata's Business Principles, SMI did not provide any financial or in-kind contribution to political parties or individuals in 2010.

SMI plays an active role in industry organizations and multi-stakeholder groups, through membership, funding, provision of expertise or participation in committees and working groups. These include membership in the Chamber of Mines of the Philippines, Philippine Mine Safety and Environment Association (PMSEA) and Philippine Business for Social Progress (PBSP), among others. For more information, refer to page 18 of this report.

#### Child and forced labor

As stated in SMI's Business Principles, we support the elimination of all forms of forced or compulsory labor, and will not tolerate any form of child or forced labor. SMI is audited through the internal risk-management audit program managed by Xstrata Copper.

SMI also adheres to the United Nations Declaration on Human Rights and the Philippine Labor Code.

### Principal memberships & associations

In the Philippines, SMI actively participates in and supports the activities of the local mining industry and its stakeholders. The company maintains industry linkages and continues to build working relationships with the following business, industry and non-government associations:

- Asian Institute of Management Center for Corporate Social Responsibility
- Ateneo School of Government
- Australia-New Zealand Chamber of Commerce of the **Philippines**
- British Chamber of Commerce of the Philippines
- Business for Social Responsibility
- Chamber of Mines of the Philippines
- Coalition for Responsible Mining in Mindanao (COREMin2)
- European Chamber of Commerce of the Philippines
- Financial Executives Institute of the Philippines (FINEX)
- General Santos City Chamber of Commerce and Industry Inc.
- Geological Society of the Philippines
- International Finance Corporation
- League of Corporate Foundations
- Mindanao Association of Mining Engineers
- Mindanao Association of Mining Industries
- Mindanao Business Council
- Mindanao State University Iligan Institute of Technology

- Philippines-Australia Business Council
- Philippine Business for Social Progress
- Philippine Business for the Environment
- Philippine Business Leaders Forum
- Philippine Chamber of Commerce and Industry (and its local chapters)
- Philippine Mine Safety and Environment Association
- Philippine Minerals Exploration Association
- Philippine Society of Mining Engineers
- Philippines-Swiss Business Council
- Pollution Control Association of the Philippines Inc.
- Safety Organization of the Philippines
- Society of Metallurgical Engineers of the Philippines
- Socsksargen Multi-sectoral Coalition for Sustainable Development
- South Cotabato Chamber of Commerce and Industry Foundation Inc.
- Students in Free Enterprise Philippines
- University of the Philippines Department of Forestry
- University of the Philippines Department of Mining, Metallurgy and Materials Engineering

SMI's General Manager is a member of the PMSEA Board of Directors. SMI is also a lead convener of COREMin2, a coalition of mining companies in Mindanao that aims to promote responsible minerals development on the island.

#### Human rights and regional security

#### Voluntary Principles on Security and **Human Rights (VPSHR)**

Our Business Principles are consistent with the principles set out in the UN Universal Declaration of Human Rights, the International Labor Organization Conventions and the UN Global Compact.

SMI's SD Standards require that our operations and projects implement community relations strategies that ensure transparent and honest stakeholder engagement, and full respect for cultural heritage, traditions and norms. Appropriate community grievance mechanisms are also set up to protect these rights.

The Tampakan Project is located in a high-risk region for security, and requires a significant security presence. SMI has formally adopted the VPSHR to manage its security risks and to ensure high ethical standards in its dealings with public and private security agencies and local communities. The Tampakan Project works closely with communities and other stakeholders through its implementation of the VPSHR and through a range of initiatives to improve security conditions.

In response to an attack on the Tampakan Project Base Camp in 2008 carried out by a militia group known as the New People's Army, the Tampakan and Kiblawan local government units adopted a communitybased, multi-stakeholder security plan at the request of local communities to enhance peace and order in the region. The initiative includes volunteer army reserve units under

the administrative and operational control of the Armed Forces of the Philippines (AFP).

SMI supports this multi-stakeholder approach to improve security in the region, and continues to engage with the community and different levels of government on security issues and human rights training.

In 2008, SMI engaged the US-based Business for Social Responsibility (BSR), which was co-secretariat for the VPSHR, to train its security staff and contractors. SMI also partnered with the Philippine Government, the Philippine Chamber of Mines and the Philippine Business for Social Progress (PBSP) to train a further 67 stakeholders, including government, business and non-government organization (NGO) representatives, on the VPSHR.



Following positive feedback from stakeholders regarding the training, SMI sponsored a BSR program to 'train the trainers' on the VPSHR in 2009. The course was attended by 34 individuals, comprising of 21 employees and 13 external stakeholders from the AFP, local NGOs and government departments.

The training has focused on identifying human rights issues and risks associated with the activities of SMI and extractive industries, and demonstrated how the VPSHR can be applied by companies and host governments to mitigate these risks.

SMI continues to institutionalize human rights principles within the Tampakan Project and to promote awareness and practical experience among its external stakeholders. This work includes the progressive development of formal policies and guidelines for the project.

In 2010, SMI continued to provide VPSHR training to its private security personnel, with 78% of personnel trained as of end-December. SMI engaged the Philippine Government's Commission on Human Rights (CHR), the Philippine National Police (PNP), the AFP, the regional officials of the Department of Interior and Local Government (DILG), Mines and Geosciences Bureau (MGB) and the National Commission on Indigenous Peoples (NCIP) to promote greater awareness on VPSHR, and to seek their input in developing a general framework for a multisectoral VPSHR program in 2011 and beyond.

There were no reports of human rights breaches by private or public security personnel in the Tampakan Project area in 2010.

#### Security incidents

Regional security continued to be a challenge for SMI in 2010, resulting in the temporary suspension of field activities on two occasions. The most serious incident occurred in December, when two security guards were injured in a shooting incident by unknown person(s) while on post in Datal Alyong, Tablu, in Tampakan. We take the safety of our employees and contractors very seriously and we continue to closely monitor security in the region. We provide all our workers with regular updates and guidance in relation to security matters and continue to work with key stakeholders to improve security in the region.

# Our economic contributions



If the Tampakan Project is approved, the mine would be the largest in the Philippines and among the largest copper mines in the world. The proposed final mine area covers approximately 10,000 hectares and is located between the towns of Tampakan and Kiblawan in southern Mindanao. In addition. the Project would also require a power plant and port facilities, located at Malalag in Davao del Sur.

The magnitude of the Project means the expected economic benefits are substantial and would be potentially life changing for

many Filipinos, enabling a better future.

The Centre for International Economics (CIE), an Australian international economic consultancy, prepared an economic study as part of the EIA process. This study indicates the main direct channels for economic benefits to be distributed in the Philippines would be:

Contribution of, on average, PhP134 billion (USD2.8 billion) to Philippine gross domestic product (GDP) each year during the construction and operation

- phases, equivalent to an additional annual increase of 1% to Philippine GDP
- Total government revenues (national and local) through a variety of taxes and charges of approximately PhP307 billion (USD6.4 billion) (nominal) over the 20 year life of the Project
- Royalty payments and direct contributions in excess of PhP39.8 billion (USD830 million) (nominal) to local communities and local indigenous groups over the Project's life

 Employment opportunities for over 10,000 workers at the peak of construction, and approximately 2,000 workers during the operations.

These figures are based on consensus projections of long-term copper and gold prices. A uniform exchange rate of Philippine pesos (PhP) 48/US dollar (USD) is used to convert future values in USD to PhP or vice versa.

Although it has not yet been approved, the Tampakan Project already delivers significant benefits to the host municipalities and surrounding communities, in terms of employment, purchase of goods and services, taxes and other charges, and community development projects.

In 2010, the Project contributed PhP2.5 billion to the Philippine economy through:

- Direct employment of 372 people and a further 1,185 contractors. The annual wages exceed PhP268 million (USD5.95 million)
- Local purchase of goods and services amounting to PhP656.1 million (USD14.5 million)
- PhP77.3 million (USD1.7 million) in power and fuel charges
- PhP399 million (USD8.9 million) in taxes and fees paid to the Government, remitted to the local Bureau of Internal Revenue (BIR) office. Of this, PhP2.6 million (USD57,000) went to local government units
- Community partnerships, sponsorships, and donations totaling more than PhP135 million (USD3 million), and
- Other purchase of good and services in the Philippines, amounting to PhP966 million (USD20 million).





case study

# Training in high-value crop production boosts incomes, prepares farmers for Tampakan Project

In line with UN Millenium Development Goals, SMI is working to alleviate poverty and improve economic sustainability within its sphere of influence through its livelihood programs. SMI is supporting farm training and providing financial assistance to help dozens of subsistence farmers switch to higher-margin vegetables and organic rice rather than commodity crops such as corn.

Many small farmers within the region earn less than the poverty threshold in South Cotabato Province.

SMI has used training sessions, demonstration farms, and provided financial assistance to familiarize farmers with key concepts, such as economies of scale. This helps them consider their farm not just as a source of food but as a business.

For example, 16 farmers in the Sitio Salway Farmers Association began switching to bell peppers, green beans, and potatoes, with support from SMI. Potatoes, in particular, are in short supply and command higher prices at the market. With training launched in March 2010, and total seed capital of PhP76,000 (USD1,727), the farmers turned 3,000 potato tubers into 18,000 in just three months. Their incomes have increased by as much as 50%. On average, income among participants had increased by PhP1,500 (USD34) per month.

While still below the provincial poverty threshold, the Salway farmers have already begun to plan further improvements, including increased education for their children, an electrical generator for their

village, and even higher-value crops, such as fruit trees.

The key to the initiative's success has been the partnerships brokered by SMI. The Office of the Municipal Agriculturist in the host community of Tampakan provides the expertise in farm technologies, while local farmers' associations provide groups of beneficiaries keen to try new technologies.



# Our people and their workplace

We maintain a safe workplace based on mutual respect, fairness and integrity. Our goal is to realize the full potential of our employees.



In line with Xstrata Copper's SD Policy, SMI values diversity and treats all our employees and contractors fairly, offering equality of opportunity at all levels of the organization, without prejudice of any type. We hire according to the skills and experience required for each particular position, without discrimination based on gender, race, age, sexual orientation, religion, nationality or any other factor.

# **Employing locally**

SMI gives priority for employment to competent and qualified long-term residents in the community.

As of December 2010, the Tampakan Project engaged 372 employees and 1,185 contractors, with 99% coming from the

Philippines. For more information, refer to table on page 26 of this report.

## Employee training and education

Our people are our best assets. To ensure employees are given a continuous learning environment and experience, SMI invests in in-house and external training programs.

In 2010, SMI invested PhP7.2 million on 176 training courses, covering:

- **Cultural Inductions**
- Culture of Peace
- **Functional Competency Development Programs**

- Leadership Competency Development **Programs**
- Waste Management Programs
- Corporate Inductions
- Toolbox Talks
- **Environmental Management System** Workshop
- Safety and Emergency Drills
- Safety and Health-Oriented Training Programs.

SMI delivered 20,435 hours of training in 2010, which equated to an average of 55 hours per employee, an increase from 20.7 hours per employee in 2009.



#### Labor relations

Labor relations is a fundamental responsibility of operational management, and we seek to achieve a direct relationship between our employees and line management that is anchored on high-quality leadership, effective communication, respect and mutual trust.

We consult with our employees in advance of any significant operational change. Similarly, we provide employees with support and open channels of communication in the event of significant organizational changes, acquisitions and key business milestones.

In the Philippines, the Labor Code allows

employees to form unions or join associations. At the moment, there is no employee union at SMI, however, all employees are free to join a union of their choice. SMI also subscribes to Xstrata Copper's Business Principles, and we recognize and uphold the rights of our workforce to a safe workplace, collective representation, just compensation, job security and opportunities for development.

# Non-discrimination policy

In accordance with Xstrata's Business Principles, SMI values the contribution made by our employees and, under our SD Policy, does not tolerate any form of discrimination, abuse of power, harassment, or physical or verbal violence in the workplace. We also provide employees with a fair and nondiscriminatory mechanism for complaints, and foster practices that respect their rights and personal dignity.

There were no incidences of discrimination reported in 2010 at SMI.

# Workforce by origin

Origin	Emplo	yees	Employees and Contractors	
Origin	Headcount	%	Headcount	%
Tampakan	117	31.5%	899	57.6%
Other areas in South Cotabato Province	49	13.2%	84	5.4%
General Santos City	60	16.0%	118	7.6%
Kiblawan	19	5.0%	244	15.6%
Luzon Island Group	43	11.6%	64	4.1%
Other areas in Mindanao	46	12.4%	62	4.0%
Visayas Island Group	8	2.2%	8	0.5%
Columbio	10	2.7%	14	1.0%
Sarangani Province	3	0.8%	5	0.3%
Australia	6	1.6%	7	0.5%
Other areas in Davao del Sur Province	7	1.9%	46	3.0%
Other areas in Sultan Kudarat Province	4	1.1%	6	0.4%
TOTAL	372	100.0%	1,557	100.0%

# Workforce by role type as of December 2010

Position level	Headcount	%
Managers	12	3.2%
Superintendents	26	7.0%
Supervisors / Officers	128	34.4%
Staff	206	55.4%
Total number of employees	372	100.0%

# Training and education

Employee Training	Jan - Dec 2010
Total Training Hours	20,435
Average Training Hours per Employee	55
Total Training Cost	PhP7,248,781
Average Training Cost per Employ	PhP19,486

Position	Jan - Dec 2010
Managers	218 hours
Superintendents	2,258 hours
Supervisors, Officers and Staff	17,960 hours
Total	20,435 hours



# Safety and health

We aim to operate a Zero-Harm workplace, and to enhance the well-being of employees, contractors and communities.



We provide visible leadership, with our management team being held accountable for safety performance and for ensuring employees have the knowledge and skills required to perform their work activities safely.

We encourage employees to take responsibility for their own safety and that of their colleagues, and we encourage them to promote safe behaviors at home and within their community.

We are committed to eliminating or mitigating conditions that pose a risk to safety and health in our workplaces. We ensure that every task undertaken in our operations has safe systems defined, and our people have well maintained tools and equipment, enabling tasks to be completed safely and productively. In addition, through screening programs, we monitor our employees' health, well-being and fitness for

SMI uses a risk-management system to identify, assess and eliminate or control safety risks. We immediately and thoroughly investigate all safety incidents and ensure necessary actions are taken to eliminate or mitigate further risks. Safety auditing takes place regularly across our business to improve safety standards, practices and performance. Safety initiatives and issues are regularly communicated to all of our staff.

SMI remains committed to its goal of Zero Harm. Decisions made within SMI are focused on maintaining a work environment that is healthy and injury-free for its staff, contractors and the community.

In 2010, SMI achieved its Total Recordable Injury Frequency Rate (TRIFR) and Lost Time Injury Frequency Rate (LTIFR) targets of <3.4 and >0.9 respectively, reporting a TRIFR of 1.3 and LTIFR of 0.26. Unfortunately, the Project did not achieve its Disabling Injury Severity Rate (DISR) target of <2.9, due to an incident on 26 February involving a drill rig assistant who injured his left foot, resulting in an extended period of assignment to restricted duties.

During 2010, SMI built upon the safety measures introduced in 2009:

A comprehensive roll-out of a Behavioral Based Workplace Observation (BBWO) system to maintain a high level of awareness among employees and contractors of safe behavior in the work place

- A program of safety-related training in the community, to encourage safe behavior in the home environment
- A thorough review of SMI's safety requirements for vehicles and drivers as a result of the increasing reliance on rental vehicles for transport.

#### Behavioral Based Safety

In 2010, under the Behavioral Based Safety Program, SMI rolled out the "Behavioral Based Workplace Observation (BBWO) Program" following a pilot program in 2009.

The BBWO requires staff to identify safe and at-risk behaviors in a supportive fashion. Employees ask fellow workers if they can observe them while conducting a task. The observer then discusses their findings with the employee, to reinforce positive behaviors while evaluating potentially negative ones. Completed forms are then submitted with only the observer's name on them, putting the emphasis on learning rather than blame. At least 300 observations have taken place monthly.

#### Safest mine award

In 2010, SMI was awarded the Safest Mine (exploration category) by the Philippine Government's Department of Environment and Natural Resources, and the Award of Distinction by the Safety Organization of the Philippines, Inc. (SOPI) for its safety practices and in achieving five million man hours without Lost Time Injury.

#### Occupational health

SMI has established and implemented systems, plans and programs to identify, analyze, evaluate, treat and enhance the health and well-being of our workers, contractors and visitors. This is part of SMI's commitment to providing a workplace that is free from significant occupational health and hygiene hazards.

SMI's Occupational Health Program focuses on five key areas:

- Health Control and Services
- Health and Hygiene Monitoring
- First Aid and Emergency Response
- Health Promotion and Awareness
- Health Impact Assessment.

These measures are used to identify, assess and control occupational health hazards through practical and reasonable methods to help eliminate work-related illnesses and injuries.

#### Health control and services

The key objective of our Occupational Health Program is to protect our employees from occupational hazards posing danger to their health and safety.

These hazards are identified and integrated in the SMI SD Risk Register. Controls and mitigating measures are designed, established and validated for effectiveness according to the hierarchy of controls.

Since 2008, SMI has contracted a local private physician to provide expert medical advice in improving the delivery of health care services, and to regularly monitor the health status of employees.

#### Health and hygiene monitoring

A comprehensive annual medical assessment is conducted for all SMI employees to ensure they are fit for the specific duties they undertake. For SMI, being fit for work means that employees are physically and mentally able to perform the essential functions of their job. Also, employees and contractors returning from serious illness or injury participate in return to work assessments before they are allowed to continue their duties.

#### First aid and emergency response

To ensure quick responses to all work-related medical emergencies and injuries, first aid kits are placed in all work areas, including vehicles. First aid stations manned by qualified medical aides were provided at Base Camp and Kimlawis Camp. An ambulance is also stationed at Base Camp to transport emergency and injury cases to the nearest accredited hospital.

In 2010, SMI signed an agreement with three local tertiary hospitals located in Tampakan, Kiblawan and General Santos City to further enhance our emergency response services.

#### Health promotion and awareness

SMI engaged a wellness consultant during 2010 to design and coordinate a fitness program for employees, including aerobics and gym classes, and weekly fruit breaks. In addition, different topics on healthy lifestyle were discussed in monthly education classes for employees.

Hepatitis B immunization and annual flu shots were also made available to employees.

### Health impact assessment

In 2010, SMI contracted an independent group to conduct a Health Impact Assessment (HIA) of the Tampakan Project. The assessment will identify the potential positive and negative health impacts of the proposed mining development on the communities in the Project area.

The Planning and Literature Review (Stage 1) and HIA screening and scoping (Stage 2) has been completed. Health baseline data collection (Stage 3) is currently being undertaken. Health risk assessment and the development of control and mitigation measures (Stage 4) are scheduled for 2011.

# case study

# Hazard reporting

Achieving a Zero-Harm work environment is a priority for SMI.

Driven by strong leadership at Management level, SMI empowers employees to take responsibility for their safety and that of their colleagues. A rigid process is in place to help workers proactively identify and report potential hazards in their surroundings.

Prevention of incidents is the guiding principle in ensuring the continued health and safety of SMI's employees. This is achieved through identifying and eliminating hazards before they cause damage or harm.

SMI has implemented a procedure to minimize risks in the workplace, and to safeguard the well-being of all employees and contractors.

A standard hazard identification form is used to report possible health and safety threats. Each form is labeled with a risk register number to simplify monitoring of its status. The detail of the employee who reported the hazard, together with the supervisor who received and logged the hazard, is included on the form. This ensures employee and management accountability.

The SMI supervisor is responsible for taking prompt corrective action when a hazard is identified. Time and date notations on the hazard identification form provide benchmarks to measure promptness of corrective action. The SMI Safety Team reviews and monitors all reported hazards

Part of SMI's dedication to exercising the highest standards of personal and professional ethical behavior is ensuring workers are vigilant about reporting not only hazards which directly affect them, but those that may impact the community as well.

SMI's hazard reporting system has strengthened the ability of its employees and contractors to maintain safe work habits, helping workers become 'inherently safe' and to raise workplace standards.





case study

# Tampakan Project promotes safety culture inside and out

If developed, the Tampakan Project would be the largest mine in the Philippines. With this in mind, the need to reinforce a safety culture to support modern mining – both inside and outside the Project – is critical.

SMI, in partnership with the Philippine National Red Cross, is teaching basic First Aid, home nursing, and search and rescue techniques in isolated communities like Bololsalo, which have limited access to basic health services

In 2010, some 1,144 people in 19 barangays were trained under this program. Trainers, recruited from host communities, translated the Red Cross' knowledge in two local languages, designed to sustain safety knowledge in the host communities.

The training begins with basic First Aid procedures such as treatments for cuts and fractures, then progresses to more complex lifesaving skills such as snake bite treatment and basic cardio pulmonary resuscitation (CPR). To test the skills learned, SMI conducted a Barangay First Aid Competition, which helped reinforce learning and demonstrate competence. Trainees have reported putting these skills into practice.

The Behavioral Based Workplace Observation (BBWO), which was launched companywide in April 2010, encourages staff to identify safe and at-risk behaviors – many of them unconsciously learned. Employees ask fellow workers if they can observe them while conducting a task. The observer

then discusses his or her findings with the employee to reinforce positive behaviors while evaluating potentially negative ones.

Safety and Health Superintendent Rogelio Quito acknowledges there has been a fundamental shift in creating a culture of "unconsciously safe behaviors" as opposed to "unconsciously unsafe behaviors".

# Sustainable communities

We contribute to the social and economic development of sustainable communities associated with our operations.



SMI seeks to improve the quality of life of communities near its operations. We believe that contributing to the development of sustainable communities and engaging with our stakeholders in two-way, open dialogue enhances our corporate reputation and is crucial to maintaining our social license to operate.

We identify our communities and other stakeholders at the earliest possible stage, and maintain active, transparent and culturally appropriate approaches with them throughout the life cycle of our operations. This way, we seek to establish a mutually beneficial relationship based on meaningful engagement.

We register, monitor and address gueries, as well as complaints, from the communities in areas where we conduct our activities. We are challenged by their questions to find new ways of doing things, and in the process, learn to be a better corporate citizen. We establish fair and equitable processes for engagement with indigenous and local communities, seeking, where relevant,

their Free and Prior Informed Consent, and respecting their culture, customs, interests and rights.

## **Corporate Social** Involvement

Through its Corporate Social Involvement (CSI) programs, SMI seeks to develop partnerships with the community in the areas of education, entrepreneurship, environment, social and community development, healthcare, and art and culture. These partnerships contribute to the communities' sustainable development and local capacity building.

In 2010, SMI invested PhP135 million (USD3 million) in various programs, which have provided tangible benefits to our host communities. SMI's Corporate-Community Sustainability Department facilitates these CSI programs through direct interaction with local community groups and government.

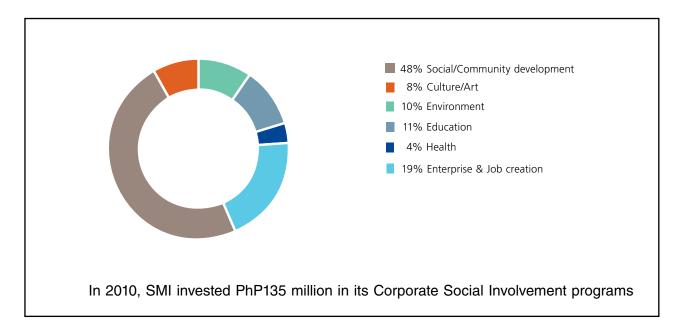
Furthermore, in support of CSI programs, SMI collaborated with the Department of Interior and Local Government and three local government units to conduct extensive poverty baseline mapping in the company's host and surrounding communities. This is significant, not only because this will enable the company to establish more quantitative outcomes and impact-driven targets for community development, but also because this is the first time these communities will have such data. This will also enable them to produce comprehensive local development nlans

# Socio-economic sustainability

In 2010, SMI invested in socio-economic programs that aim to provide real and longterm benefits to host communities. During the year, we delivered:

#### Infrastructure development

SMI invested PhP65.3 million (USD1.5 million) to fund the development programs of the host local government units and IP communities, and support the construction



of facilities that support basic social services. In 2010, 16 community infrastructure projects, such as potable water systems, health facilities, tribal and barangay halls, refurbishing of classrooms have been completed, and three more are currently being implemented.

#### **Livelihood and Enterprise Development**

Based on community needs and available resources, SMI has assisted in developing livelihood and enterprise projects. Through an investment of PhP26 million (USD590,000), SMI provided technical and capital support to community-based groups, as well as assistance to local government initiatives to generate jobs and increase household incomes:

- 31 livelihood projects were developed in 2010. These projects included high-value crops and other vegetable production, handicrafts, abaca and organic upland rice production, and hog and poultry-raising. These initiatives aim to benefit 1,965 households. Of these projects:
  - 14 were completed by the end of December and have benefited 311 households
  - Five are on-going and are benefitting 87 households
  - 12 have been developed and approved for implementation in 2011, which aim to benefit 1,567 households.
- 38 groups have been provided with technical and funding assistance to implement their proposed enterprise development projects, including:

- 18 community-based organizations
- 13 tribal councils
- Seven local government units

#### **Education**

SMI invested PhP14.4 million (USD322.000) to advance the quality of, and access to, basic education in the local community. A total of 18,811 college, high school and elementary students were granted financial support from SMI, with SMI also subsidizing the monthly salaries of 18 public school teachers.

#### Healthcare

SMI invested PhP4.8 million (USD107, 000) for various health support programs within the Project area and neighboring communities. A total of 1,987 heads of families were enrolled in the government health insurance program (PhilHealth) with support from SMI. Basic health care programs have benefitted over 12,000 residents in remote communities.

#### **Environment programs**

SMI invested PhP13.2 million (USD300,000) for various environmental enhancement initiatives. For more information, please refer to page 38 of this report.

#### Cultural sustainability

SMI employs a culturally sensitive approach to stakeholder consultation and engagement. During the year, SMI invested PhP11.2 million (USD249,000) to cultural preservation and enrichment programs.

As part of SMI's ongoing interaction and partnership with host indigenous communities, SMI has undertaken a number of engagement modules in partnership with the community. These modules are designed to provide SMI with a greater understanding of the indigenous (Blaan) culture, including

awareness of particularly sensitive locations within the Tampakan Project area. They also minimize the social and cultural impact on the Blaans that may result from the Project's activities if consent for development is given by these communities.

# Stakeholder consultation and engagement

SMI engages with stakeholder groups at national, regional and local levels through open and transparent consultation. The company's extensive consultation program aims to inform stakeholders of our plans for the proposed Tampakan Project. In 2010, SMI undertook the following activities:

- Four public scoping meetings and 72 private consultation meetings with key stakeholder groups in relation to the EIA for the power plant, port facilities, power transmission lines and concentrate pipeline
- SMI facilitated project visits for 112 stakeholder groups, comprising of 2,495 individuals, to promote awareness on the current activities in the Tampakan Project
- SMI launched the Mobile Community Information Resource Center (mCIRC), a communications facility that uses stateof-the-art audio and visual technology to allow stakeholders to imagine the proposed Tampakan mine and associated infrastructure layout. By the end of December, the mobile center had reached 13,700 individuals
- We maintained the Stakeholder Consultation, Communication, Consent and Convergence Network (C-net), as a means of recording, and responding to, community queries regarding the Project.

# Community sustainability management systems

To institutionalize community engagement management systems across the business and to ensure continuous improvements of policies and procedures within SMI, the following systems have been developed in

- Donations and sponsorships guidelines and procedures
- Initial program framework for the Voluntary Principles for Security and Human Rights (VPSHR).
- A third-party strategic review of the Corporate-Community Sustainability Department and its education, enterprise development, community infrastructure and community health programs, to ensure continued relevance and effectiveness.

There is an ongoing review of the life-ofmine stakeholder grievance guidelines and procedures, and Community Sustainability Program Development, Implementation, Monitoring and Evaluation (PDIME) guidelines and procedures.

### Community grievance

SMI has implemented a grievance resolution mechanism to capture and address community complaints. This involves documenting and recording complaints, and identifying the appropriate authority within or outside the company that has the responsibility or mandate to resolve the raised issues

In 2010, SMI recorded 38 community complaints that were related to land conflict, and land and crop damage compensation. Of these, 89% have been resolved, 8% are undergoing settlement, and 3% have been withdrawn.

## Free and Prior Informed Consent and resettlement

SMI's policy is to avoid the need for resettlement wherever possible. However, where resettlement is required, we will adhere to national laws and international standards, including the International Finance Corporation (IFC) guidelines, particularly the livelihood restoration and compensation principles.

To ensure industrial and public health and safety, land within the proposed final mine area will be required for the exclusive use of the mine. This will affect about 5,000

individuals. SMI commits to comprehensively consulting with all the affected communities, and securing Free and Prior Informed Consent (FPIC) in the case of the IP households, prior to any resettlement taking place. FPIC will also be secured from members of indigenous people (IP) communities who may live outside the proposed final mine area but who are part of the recognized host indigenous community.

SMI is working in partnership with the Philippine Government's National Commission on Indigenous Peoples (NCIP) to ensure the process of resettlement is properly managed. This work will be conducted in accordance with Philippine Government regulatory requirements, SMI and our parent company Xstrata Copper's corporate policies, as well as international standards.

In 2011, SMI will conduct an extensive consultation program on its proposed Comprehensive Sustainable Resettlement Plan. The plan follows a developmentoriented approach where resettlement is not merely concerned with the physical relocation of people out of the Project area. The plan details proposed strategies and planned activities for each of the six operational components of the sustainable resettlement program, including housing and infrastructure development, livelihood and enterprise development, health services delivery improvement, improved access to education, social infrastructure, and capability building.

# Artisanal and small-scale mining

Artisanal and small-scale mining (ASM) ranges from informal subsistence mining by individuals to small, formal commercial mining operations. ASM tends to take place in the developing world, particularly in remote, rural areas where there is little alternative work. Environmental damage from unregulated air, land and water pollution, soil erosion and deforestation is commonly associated with ASM. Health and safety practices and protective equipment are often basic or nonexistent.

As large-scale and small-scale mining increasingly coincide, leading practice standards are starting to emerge on how large mining companies should engage with artisanal and small-scale miners to avoid conflict, develop sustainable livelihoods and ensure all mining in the region is conducted to appropriate environmental, safety and social standards.

At SMI, we are committed to identifying the concerns and needs of our host communities and contributing to their socio-economic capacity and sustainable development.

We follow ICMM guidance addressing the management of ASM relationships and the need to create a secure environment for our Project.

In the Philippines, small-scale mining involving the extraction of minerals by manual labor without the use of heavy equipment or explosives, is regulated through mining permits issued by the provincial government or small-scale mining contracts authorized by the Philippine Government's Mines and Geosciences Bureau (MGB).

Illegal small-scale mining operations are present in the Tampakan Project area. Baseline water quality monitoring in the water catchments surrounding the project indicates the presence of mercury in the upper catchment of the Pulabato River system as a result of these small-scale mining activities. The concentrations of total mercury detected in the Pulabato River system periodically exceed the Philippine drinking water guidelines (1 µg/L) at some locations. While this water source is not known to be used directly for drinking water, the presence of mercury poses a risk to human and ecological health.

SMI has been working with key stakeholders, including local authorities and host communities, over several years, to address the complex issue of ASM in the Project area. SMI has provided the results of its environmental monitoring to local authorities to assist in identifying areas of illegal ASM. More importantly, SMI gives priority for employment opportunities to members of the local community (who make up the majority of our workforce), which include those previously engaged in illegal ASM.

In addition, through our livelihood development program, SMI provides funding and skills training for local community members, including individuals who previously participated in ASM activities, to establish alternative, legitimate and sustainable forms of income, such as highvalue crop farming, beadwork and poultry farming (see page 33 for further details).

# case study

# Mobile Community Information and Resource Center (mCIRC)

In June 2010, SMI intensified its efforts to reach the diverse and remote stakeholders in the Tampakan Project area. Through use of innovative technology and robust messages, SMI is generating a greater understanding of mining and the company's commitment to sustainability.

The Tampakan Project Impacts a diverse range of communities and stakeholders, and is faced with environmental and social complexities. Should it be approved, this unprecedented project for the Philippines would be the largest mine in the country and among the largest copper mines in the world

Making such a significant mining project a reality for stakeholders, most of whom have never directly experienced modern mining, is no small task. To help communicate the magnitude and scope of the Tampakan Project and its environmental and social impacts, SMI launched the mCIRC in June 2010. By the end of December 2010, it had already reached more than 13,700 people.

blending state-of-the-art technology with a human touch. The facility helps stakeholders to imagine a project of a scale and scope which they have never seen before.

Informative, interactive video displays on touch screens are housed in a tent that can be taken apart, transported to the next village - even over rough roads - and set up again. Thoroughly trained hosts from the local communities guide visitors through the experience, fielding questions and providing comprehensive information.

mCIRC is part of SMI's long-term effort to overcome negative legacies associated with past mining practices in the Philippines which have left some Filipinos with strong negative views about the industry.

mCIRC aims to demonstrate how modern mining practices are compatible with SD principles.

Information provided at mCIRC is tailored to address stakeholder concerns and has been grouped into six broad themes: community relations, forest management, water management, the mine life-cycle, resettlement, and mine layout.

Computer graphics in 3D allow visitors to virtually "fly" over the Project site, visualizing the proposed mine and associated infrastructure layout. Touch-screens allow

visitors to select areas of personal interest, while a narrated video - translated into four languages - explains the company's plans for water treatment, reforestation, and other environmental issues. Wall-mounted graphics illustrate the effects of illegal mining on communities, while highlighting the long-term benefits that responsible mining practices can provide.

The highlight of the presentation is a holographic display, where an image of a person — as the narrator - is projected on to a small stage with "real" props. The hologram shows the many daily activities that depend on minerals, helping to illustrate at a grassroots level how mining improves the day-to-day lives of community members.

mCIRC also helps communicate a greater understanding of SMI's SD plans and policies particularly to its host communities to assist them in formulating a free and prior informed decision of the Project.



# SMI supports innovative education programs

Through partnerships with the provincial government of Sarangani and the municipal government of Tampakan, SMI is supporting an innovative teaching program to benefit a significant number of children.

In 2009, the Provincial Government of Sarangani, in conjunction with Synergeia Foundation, launched Quality Education for Sarangani Today (QUEST). The program, which was supported by SMI, was designed to help increase the average score of elementary school graduates taking the National Achievement Test (NAT) – an exam measuring a grade school student's readiness for high school – through improving the skills of their teachers, and providing advice to parents.

Synergeia, a non-government organization working to improve basic education in the Philippines, found the program succeeded in increasing the school's average NAT score from 47% to 70%.

Inspired by the program's success in Sarangani, SMI partnered with Synergeia in October 2009 to launch an equivalent program in Tampakan - the Creative Reform in Education System in Tampakan (CREST). CREST's goal is to help achieve a 75% passing rate for Tampakan on the NAT. More than 1,000 grade one students from all 17 of Tampakan's elementary schools were part of the initial roll-out.

The CREST roll-out program included:

- Grade one teacher training to assess reading/comprehension skill levels and to strengthen English skills in grammar, vocabulary and pronunciation. The workshop included training on effective teaching techniques, such as use of body language and facial expression to support verbal communication
- Grade one student training, where students undertook an exam to identify gaps in learning. The program funded

- provision of extra text and work-books removing the necessity for children to share materials
- Training for parents of grade one students, which focused on reading comprehension, tips to help children perform better in school, the importance of providing adequate nutrition, and ideas for supporting school activities and homework

The CREST program is now being offered to pupils in grade two. Through SMI's continued partnership with Synergeia and local government officials, Tampakan student education is expected to significantly improve in coming years, ensuring a strong foundation for economic and social development.

These programs add to a range of other initiatives underway which support and enhance education in the southern Mindanao area. This includes providing financial support to approximately 19,000 students, and additional teacher training and assistance.



# SMI trains barangay health workers

SMI has collaborated with the local governments hosting the Tampakan Project to help deliver crucial community health programs aimed at providing much needed medical services to villages within the Project area.

Before SMI launched its village health initiatives, the Municipal Health Offices (MHO) of these local government units had been conducting basic child immunization and maternal health programs. However, with government resources stretched, the programs could not reach a large portion of villagers, particularly those living in remote areas which could only be accessed by four-wheel-drive vehicles.

SMI helped to resolve this issue by organizing medical missions using four-wheel-drive vehicles. During the missions, SMI funded meals for the crew of community health workers, sourced vaccines (which come from the budget of the MHOs and are supplied by the Department of Health) and other medical supplies.

A regular MHO medical mission usually has only one doctor on board, resulting ir extended waiting times for patients. SMI provided funds for additional doctors, to

reduce these waiting times and enable more people to undergo general check-ups.

Community members diagnosed with serious illnesses during the general check-up were enrolled by SMI in the government health insurance program, PhilHealth, to seek treatment from a specialist. Since 2009, SMI has sponsored the PhilHealth membership of 2,370 IPs, covering the cost of their premium

While these medical missions and PhilHealth sponsorships bring urgent short-term assistance to individuals, they can become expensive and difficult to maintain in the long run. SMI has taken a long-term and sustainable approach to delivering improved health outcomes for villagers by launching its Village Health Training project. The project's objective is to increase the number of barangay health workers serving in each municipality.

Barangay Health Workers (BHWs) are unpaid volunteers who function as community health workers in their barangays. In the areas covered by the Tampakan Project, there is a chronic shortage of BHWs to service the growing village populations and limited training is provided.

To address this problem, SMI worked with local government officials to develop a BHW training program. Through the financial and logistical support provided by SMI, BHWs are now able to attend a five-day workshop to enhance their skill-sets in key health service functions. The training program covers the health problems of mothers and children, pregnancy care, postpartum care, family planning, adolescent fertility, sexually transmitted diseases, breastfeeding, monitoring the growth and nutrition of children, immunization, and community health as a public service.

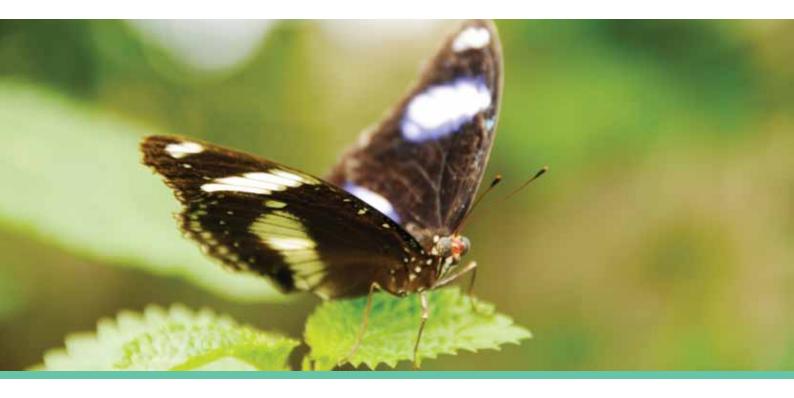
SMI's goal is to have at least 10 adequately trained BHWs deployed within each of the barangays covered by the Tampakan Project

BHWs play an important role in preserving the health of the people living in these communities. SMI is currently researching the possibility of developing self-sustaining livelihood and savings projects to supplement their income, so they can continue to effectively perform their fundamental roles as guardians of good health in their communities.



# Environmental performance

We aim to preserve the health, functions and long-term viability of the natural environments affected by our operations.



In line with SMI's SD Policy, we operate according to industry-leading environmental standards and, where relevant, eliminate, mitigate or repair the environmental impact of our operations.

The environmental management systems in place at our sites and operations are aligned with Xstrata's Business Principles and SD Standards, against which we regularly test our performance.

We manage biodiversity-related risks and seek to minimize or mitigate any negative impact on biodiversity that may be caused by our operations.

When environmental incidents do occur, we determine the cause and take steps to prevent recurrence.

SMI remains committed to leading environmental practices in its current activities and in its plans for potential mining operations.

In 2010, SMI received its third Presidential Mineral Industry Environmental Award (PMIEA) for the company's industry-leading practices in the Tampakan Project. SMI also received its third Best Mining Forestry Program Award (exploration category) from the Department of Environment and Natural Resources (DENR) for its multi-sectoral approach to reforestation involving volunteers from host and neighboring communities.

# **Environmental incidents**

There were no environmental penalties or fines recorded in 2010. The Project did not record any Category 3 (significant), 4 (serious) or 5 (disastrous) environmental incidents.

# Reforestation program

SMI has invested in various environmental enhancement initiatives, including a reforestation program.

- Through the Maleh Tu Kayo (Let us Plant Trees) reforestation program, more than 102,300 trees have been planted during the year, involving 118 volunteer groups coming from schools, local government units and civic organizations within the Project area and the region
- SMI maintains two large-scale tree nurseries located in Tampakan, South Cotabato and in Kiblawan, Davao del Sur. To ensure a high survival rate of the seedlings, SMI has adopted best management practices in seedling production
- Training on quality seedling production was provided to community members to support SMI's seedling requirement for its reforestation and buffer-zone development program

# Environmental Management System (EMS)

A quarterly audit of SMI's EMS is conducted by internal and external environmental auditors. The EMS aims to provide systematic coverage of the environmental performance, impact management and system development for the Tampakan Project. Compliance against relevant Philippine environmental legislation, permits, Memorandum of Agreements (MOAs) and licenses is progressively assessed as part of the audit.

In 2010, SMI received a score of 93.4% from this audit process, an improvement from 83%

# **Environmental Impact** Assessment

In December 2010, SMI completed the comprehensive, international standard technical studies in relation to the Environmental Impact Assessment (EIA) for the mining operations. These studies

- Mine closure and rehabilitation
- Water resources
- Mine waste management
- Terrestrial and aquatic ecology
- Noise and vibration
- Social Impact Assessment
- Visual amenity
- Climate and meteorology
- Economic benefits
- Social benefits.

The outcomes of these studies and the potential impacts of the Project have been used to develop two important documents - the Environmental Impact Statement (EIS) and the Environmental and Social Impact Assessment (ESIA).

While the EIS is the lead document, prepared for the government for the Environmental Compliance Certificate (ECC)application, SMI voluntarily developed the ESIA, which addressed international standards.

Both the EIS and the ESIA identify measures to mitigate the potential environmental and social impacts of the Project. These measures have been incorporated into the Project's design and will form part of our final Environmental Management Plan (EMP).

EIAs have commenced for the Project's off-site infrastructure demands, including a power plant, port facilities, power transmission lines and concentrate pipeline.

In line with this, four public scoping meetings and 72 private consultation meetings with key stakeholder groups were conducted between August and December 2010. The level of attendance was very encouraging, as it shows strong support for the process.

# Water management

SMI recognizes that water management is a key concern among local communities. In 2010, SMI consulted widely and extensively with local communities, water users, provincial residents, local, regional and national governments, and their respective agencies, as well as significant non-government organizations. Feedback from this stakeholder consultation has been integrated into SMI's planning and water management strategies.

Our strategies are based on 15 years of monitoring and research of water quality across the Project area to develop a significant quantity of baseline data. We have also partnered with local people who understand the local environment, to help with conducting this sampling and monitoring work.

Technical studies on water management were completed in December 2010. The proposed mitigation measures were established based on the results of these studies. The results will then be communicated to stakeholders during the consultation process relating to the EIA.

Key elements of our water management strategies include:

Using leading, international standard water conservation and recycling methods to reduce water usage approximately 70% of the Project's water needs will be met by recycling

- In the Taplan catchment, designing the proposed mine so it can operate without significantly impacting the amount of water currently used by the local community, by fully compensating Taplan River flows that may be affected by the open pit
- In the Mal catchment, building a Fresh Water Dam (FWD) that would capture only those flows excess to current downstream users' requirements
- Constructing international standard containment and treatment facilities to ensure that all water discharged from the site is suitable for all current uses
- Monitoring the surface and groundwater in collaboration with community and government groups, to validate the integrity of our numerous impact mitigation measures.

There was an increase in drilling operations in 2010, resulting in a rise in water usage to 102.92 ML, from 74.29 ML in 2009. We recycle approximately 48% of the water we

# **Biodiversity**

An extensive terrestrial ecology survey (conducted within the proposed final mine area as part of the EIA process) was conducted by AECOM Philippines, together with international experts. It is considered to be the largest ever survey of its kind conducted in the Philippines.

The extensive studies undertaken as part of this survey found the majority of the site is highly disturbed by logging and kaingin (slash and burn) farming activities.

Studies further indicated there would be no impact and no disturbance of the protected seascape of Sarangani Bay or the sensitive cultural areas of Mt Matutum, Mt Bololomot or Mt Magolo.

The EIA technical studies did recognize that not all adverse flora and fauna impacts can be mitigated.

Within the final mine area, approximately 1,300 hectares of forest would be cleared if the Project is developed.

The rich data gained by these investigations has enabled SMI to prepare effective flora and fauna management plans to minimize any further impact.

In order to mitigate the identified potential impact on flora and fauna, we are proposing a number of measures, which include:

- A reforestation program to ensure there is no net loss of forest as a result of mine- related vegetation clearing
- Creation of biodiversity corridors (buffer zones and green off-set areas) between fragmented remnant forest patches, both within and outside the proposed final mine area, which would improve the connectivity of habitats and reduce the potential impacts on biodiversity.

We intend to implement a Biodiversity Management Plan to further minimize any impacts on flora and fauna, in and around the proposed mine area.

As a result of our studies, and with these mitigation measures, we believe the Project is unlikely to directly threaten any significant flora or fauna species in the region. We will provide for potential regeneration of rainforests and re-population of fauna species in undisturbed areas of the proposed final mine area.

Around 14 hectares of land was disturbed by drilling and other field activities during the year. Of this, approximately 10 hectares has been rehabilitated.

# Climate change

As established in the SMI SD Policy, we set targets to reduce our direct and indirect greenhouse gas emissions, and work with governments, organizations and other groups to address climate change.

We recognize the future effects of climate change - including increased regulation, higher energy costs and physical impacts such as drought and flooding - represent a risk for our operations and communities.

The key to effectively managing greenhouse gases lies in the design of a mining and processing operation, because, once commissioned, these will require high energy inputs over decades of operation. To facilitate this optimization, all major projects are required to include a contingency cost for carbon in their financial models. This allows project development teams to optimize the greenhouse gas footprint of the project.

In 2010, direct greenhouse gas emissions (CO<sub>2</sub> equivalents) at the Tampakan Project were 2,730 tonnes.

# Waste management

SMI's solid waste management program proved to be efficient. In 2010, there was a decrease in SMI's waste generation compared to 2009. During the year, our activities generated 3.39 metric tons of recyclable domestic waste (4.07 metric tons in 2009), 5.15 metric tons of scrap metal (13.46 metric tons in 2009), and 6.33 kiloliters of waste oil (27.49 kiloliters in 2009).

Our activities have also generated 1.1 tons of contaminated containers and 9.6 tons of used tires.

The waste oil and used tires are sent to a third- party waste contractor/cement manufacturing plant within the region for alternative fuel resources in the plant processes.

There were no minor or significant spills at the Tampakan Project in 2010.

# Energy

Energy use during project development is generally low. The operation of generators for camps and fuel for light vehicles and drilling programs are the main energy-consuming and greenhouse gas-producing activities. Normal "housekeeping" energy efficiency programs are encouraged at SMI.

Electricity consumption in 2010 was 860,578 kilowatt-hours (kwh) which is significantly higher than the 121,483 kwh reported in 2009. Although there was a real increase in 2010 consumption due to the establishment of additional buildings and facilities, the major portion of the increase is attributable to a change in the way we report. The 2009 figure only captured electricity consumed by activities directly related to our drilling operations, whereas in 2010, we have elected to expand our electricity consumption reporting to include all offices across the Project area.

We consumed a total of approximately 487,400 liters of fuel for transport, and approximately 387,200 liters for nontransport uses in 2010.

# Mine closure and rehabilitation

SMI takes its environmental responsibilities seriously, and we are already planning for the end of the Tampakan Project, before we even start.

A Conceptual Rehabilitation and Mine Closure Plan has been prepared by independent Philippine and international experts as part of the Project's EIA.

The Closure Plan meets environmental standards and regulations set out by the Philippine Government and international best practices, and will undergo regular review to ensure it remains current and meets community expectations.

The Closure Plan covers all areas of the mining operation's activities, and requires, where possible, rehabilitation work to take place as the Project progresses.

The Closure Plan is intended to be reviewed over the life of the Project, and includes:

- A risk assessment that has been used as the basis for addressing the mining operation's rehabilitation and closure
- An outline for the Project's overall rehabilitation strategy, including the management of waste facilities, progressive rehabilitation, landform design and planning, topsoil management, final rehabilitation, and ongoing monitoring
- A description of the decommissioning and closure concepts for each of the disturbance areas
- Conceptual criteria to measure rehabilitation performance and success.

# Ongoing rehabilitation post mine closure

Three areas of the proposed mining operations would require ongoing attention after the mine closes. We have developed measures to address these areas:

- The Freshwater Dam (FWD) Clean, fresh water would continue to be safely stored and released to help sustain agricultural productivity by downstream irrigators. We believe this could become an important community resource
- The Tailings Storage Facility (TSF) In order to ensure the Project's water quality standards are maintained, water discharged from the TSF would be treated before release for at least 10 years after closure
- The open pit The water level of the open pit would be managed through controlled discharges of safe, treated water into the Taplan River. Public access to the open pit would be restricted.

# case study

# Training on production of high quality seedlings, improved reforestation success and effective buffer zones

SMI has adopted a method to produce and sustain the millions of seedlings it will use to reforest areas affected by the proposed mining operations if developed. In partnership with the Visayas State University and the University of Queensland in Australia SMI has been training suppliers to grow seedlings that are more likely to survive regional conditions.

In January 2010, SMI began training private nurseries to use best practice methods in seedling production to help replace the mixed degraded and forested uplands of the Tampakan Project site. During this training, SMI encouraged nurseries to use elevated hardening beds to grow seedlings. The elevated hardening bed method ensures a good formation of root system, and healthy stem and leaves. The seedlings raised from elevated beds have higher survival when planted and require less labor and lower maintenance cost. When seedlings were grown directly in the ground, they were often damaged when uprooted from the nursery, decreasing their chances of survival. Seedlings - where the mass of roots below ground is in balance with the mass of the shoots above ground - have higher chances of survival and better growth when out-planted.

The results are dramatic, and are most evident in the seedling survival rate when replanted in the wild. Survival rates have increased from 50% to 70% for in-ground, and 90% to 95% for seedlings produced in raised beds and fully exposed to the sun. This survival rate increases the environmental benefits of replanted forest cover, while simultaneously controlling the costs of doing so.

SMI has grown most of its seedlings. By end of 2010, SMI planted and distributed over 600,000 seedlings of various species. If the Project is developed, SMI's need for seedlings over the next 20 years would require external suppliers. A forested buffer zone is essential to the Project's environmental footprint. This footprint will protect the surrounding ecosystems, reduce carbon emissions, mitigate noise and air pollution, and prevent soil erosion. The benefits to

communities are also considerable. Growing sustainable, healthy seedlings provides a livelihood opportunity, and potentially helps improve the quality of reforestation projects undertaken by the government and multilateral aid agencies throughout the region.

SMI's Biodiversity Management Team has also been identifying "mother trees" with the most desirable genetic makeup. It has so far identified and documented some 800 trees whose appearance suggests they are ideal to produce seedlings, judging from factors such as the configuration of branches and the shape of the trunk. SMI's training helped seedling producers to assess which mother trees were more likely to produce hardy seedlings.





# case study

# Study on Lake Buluan completed

Lake Buluan, the sixth largest lake in the Philippines, is a shallow 6,300 hectare body of water located approximately 25 kilometers downstream from the proposed Tampakan Project. Straddling the municipalities of Buluan and Mangudadatu in the province of Maguindanao, and the municipalities of Lutayan and President Quirino in the province of Sultan Kudarat, the lake plays an important socio-economic role in the daily life of the communities surrounding it.

Although the quality of the water in the lake has deteriorated over years due to physical, biological and anthropogenic processes, thousands of fishermen depend on the lake for their livelihood. The irrigation channels from the Marbel and Mani Rivers also feed into the lake

SMI's Water Resources Management team has ascertained that, if developed, the operations of the Tampakan Project will have no impact on Lake Buluan. However, due to widely reported past incidents in the Philippines where natural bodies of water were impacted by irresponsible mining activities. SMI took the initiative to fund an

third-party Limnological Study of Lake Buluan to establish baseline data before commencing mining operations.

SMI entered into a Memorandum of Agreement with the provincial government of Sultan Kudarat to establish a partnership for the Lake Buluan research project, with SMI assuming the cost of the study and providing logistical support. The Australian aquatic sciences consultancy Hydrobiology, a team from the University of Southeastern Philippines (USEP) and the Sultan Kudarat provincial government were then engaged to perform the study, which began in March 2009 and ran for a period of one year.

Through a series of interviews and quarterly field work, the effects of fish-growing and fish-feeding on the lake were assessed, as well as the presence of untreated sewage and wastewater, invasive flora and fauna, and pesticides that come from nearby farming areas. Surveys were done to measure the depth of the lake, and determine sediment quality and water quality. Existing metal content of sediment and water samples were meticulously recorded.

The study team concluded that Lake Buluan, in its present form, is best managed as a fish production facility rather than a natural ecosystem. Though the lake is now far from its original pristine state, it has the capability to support a productive fishing industry.

The Lake Buluan study is the first baseline study of the lake ever to be completed. The data collected from the study can be used by local government units in managing the value of the lake for current and future generations.

# Product stewardship

SMI's SD Standards provide guidelines to ensure that the impacts and risks associated with our products and services are identified, analyzed, evaluated and minimized. Material safety data sheets are completed for products and intermediaries, including products' physical and chemical composition, risks to human health, handling, transport, storage and exposure control.

# Copper and Sustainable Development

Copper is one of the oldest metals known to man. It is estimated that around 80% of the copper that has been mined over the centuries is still in circulation as copper is 100% recyclable one of its distinguishing

Over the years, copper's uses have multiplied, thanks to its unique combination of properties. Copper is both malleable and ductile, that is it can be shaped into a variety of forms, such as wire or thin sheets, and is a highly efficient heat and electrical conductor.

It is estimated that around 70% of all copper consumed is used for its thermal and electrical properties.

This versatility, combined with copper's durability, makes it a key component of everyday life, from the coins in our pockets to the roofing of our homes and the power lines that provide us with electricity.

New uses are also constantly appearing as technology advances, whether in communications, computers or medicine. Furthermore its extensive use in 'green' technologies such solar cells, water heating panels and electric vehicles, ensures that copper will continue to play a key role in our sustainable future.

# Copper and health

Copper is essential to plant and animal life. As a micro-ingredient of many common foods, it plays a vital role in human health. Children suffering from a low copper intake can experience growth difficulties and weak bones while in adults a lack of copper can result in increased infections and heart and liver complaints.

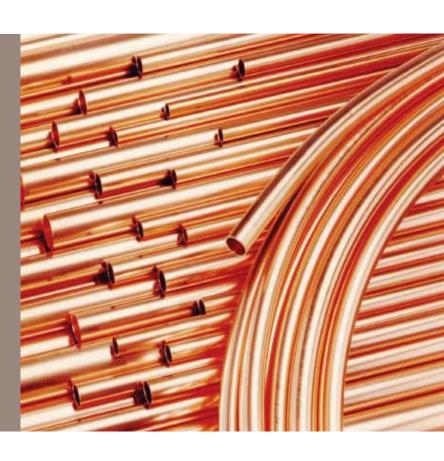
According to the US Department of Agriculture, the recommended daily intake of copper for adults is 1-2 mg. This is typically obtained naturally through a balanced diet as copper is contained in foods such milk, nuts and chocolate

Copper also makes another important contribution to human health through its ability to destroy bacteria. Officially recognized by the US Environmental Protection Agency in 2008, copper and copper alloys can kill 99.9% of bacteria within two hours. As a result, copper is now increasingly used as a surfacing material in hospitals, helping to prevent the spread of the hospital-acquired infections that are one of today's most important healthcare problems.

The main organization responsible for publicising information about copper uses is the International Copper Association (ICA). Since 2009, ICA has been chaired by Xstrata Copper Chief Executive Charlie Sartain. SMI is committed to increasing awareness of the uses of copper.

# Copper benefits Sustainable Development

- used for its thermal and electrical energyefficiency properties.
- kilograms of copper, mostly in the form of
- in the water.
- Electrical equipment that contains more





# Summary of key sustainability data

Economic contribution in USD	2008	2009	2010
Employee salaries and benefits	4.1 million	4 million	5.9 million
Taxes	4 million	4.4 million	8.9 million
Corporate Social Involvement	1.4 million	1.7 million	3 million
Public Infrastructure	5.6 million	2.5 million	7.4 million
Governance and ethics			
Total value of financial and in-kind contributions to political parties	0	0	0
Our people			
Total workforce	209	252	372
Permanent employees	170	211	248
Full-time contractors	846	1,065	1,185
Total employees covered by collective agreements	0	0	0
Percentage of employees hired from local area (Philippines)	98%	98%	99%
Fatalities	0	0	0
Total Recordable Injury Frequency Rate (TRIFR)	1.24	0	1.3
Lost Time Injury Frequency Rate (LTIFR)	0.41	0	0.26
Disabling Injury Severity Rate (DISR)	2.90	0	53.20
Health and safety prosecutions	0	0	0
Health and safety fines	0	0	0
Occupational Illnesses	0	0	0
Average hours of training per employee	36.75	21.07	54.9
Our community			
Community complaints	32	16	38
Community resettlement	0	0	0
Our environment			
Domestic Waste Recycled (metric tons)	5.49	4.07	3.39
Scrap metal (metric tons)	26.60	13.46	5.15
Waste oil (kL)	18.82	27.49	6.33
Electricity (kWh)	187,465	121,483	860,578
Total water use (ML)	42.2	74.29	102.92
Raw groundwater	9.8	36.9	32.5
Raw surface water	32.4	35.4	70.42
Total recycling and reuse of surface water (ML)	not reported	not reported	49.3
Land disturbed (hectares)	2.29	13.80	14
Land rehabilitated (hectares)	3.10	8.15	9.7
Category 3 incidents	0	0	0
Category 4 incidents	0	0	0
Category 5 incidents	0	0	0
Prosecutions	0	0	0
Fines in USD	0	0	0

# Global Reporting Initiative (GRI) index

The table below indicates where to locate information relating to GRI G3 indicators and principles in this report or other publications.

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Economic	Performan	ce Indicators
EC1	<b>Ø</b>	Our economic contributions, page 20
EC2	<b>Ø</b>	Climate change, page 40
EC3	8	Not reported
EC4	n/a	-
EC5	8	Not reported
EC6	0	Our economic contribution, page 20
EC7	•	Our people and their workplace, page 24
EC8	•	Corporate social involvement, page 32
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Environm	ental Perfo	rmance Indicators
EN1	0	Environmental performance,
EN2	_	page 38 Not reported
EN3	8	<u>'</u>
EN4	<b>Ø</b>	Energy, page 40  Not reported
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EN14	0	Biodiversity, page 39
EN15	8	Not reported
EN16	<b>S</b>	Climate change, page 40
EN17	n/a	
EN18	8	Not reported
EN19	8	Not reported
EN20	8	Not reported
EN21	8	Not reported
EN22	0	Solid waste management, page 40
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EN26	n/a	-
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EN29	n/a	_
EN30	€ 11/a	Environmental performance, page 38
MM3	n/a	-
MM4	n/a	-
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MM6	<b>Ø</b>	Community grievance, page 38
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	Reporting				
Indicator	Level	Location			
LA3	8	Not reported			
LA4	<b>Ø</b>	Labor relations, page 25			
LA5	<b>Ø</b>	Labor relations, page 25			
LA6	8	Not reported			
LA7	<b>Ø</b>	Safety and health, page 28			
LA8	<b>Ø</b>	Safety and health, page 28			
LA9	8	Not reported			
LA10	•	Employee training and education, page 24			
LA11	8	Not reported			
LA12	8	Not reported			
LA13	8	Not reported			
LA14	8	Not reported			
MM12	<b>Ø</b>	Safety and health, page 28			
MM13	•	Safety and health, page 28			
Social Per	formance Inc	licators - Human Rights			
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HR3	<b>Ø</b>				
HR4	<b>Ø</b>	Human rights, page 18			
	8	Not reported			
HR5	<b>Ø</b>	Labor relations, page 25			
HR6	<b>Ø</b>	Child and forced labor, page 19			
HR7	<b>Ø</b>	Child and forced labor, page 19			
HR8	<b>Ø</b>	Human rights, page 18			
HR9	n/a	-			
	formance Inc	licators - Society			
SO1	<b>Ø</b>	Sustainable communities, page 32			
SO2	8	Not reported			
S03	8	Not reported			
S04	8	Not reported			
SO5	<b>Ø</b>	Public policy participation and political contributions, page 17			
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PR2	n/a	-			
PR3	n/a	_			
PR4	n/a	-			
PR5	n/a	_			
PR6	n/a	-			
PR7	n/a	_			
PR8	n/a	_			
PR9	n/a	-			

# Glossary

Barangay
Also known by its former name, the barrio, is the smallest local government unit in the Philippines and is the native Filipino term for a village, district or ward. Municipalities and cities are composed of barangays.

**Baseline study**The analysis of current situation to identify the starting points for a program or project.

**Biodiversity**An abbreviation of "biological diversity" and refers to the variability among living organisms from all sources, including land-based and aquatic ecosystems, and the ecosystems of which they are part.

### **Business Principles**

### Category 3: Significant environmental incident

An incident that has caused moderate, reversible environmental impact with short-term effect, requiring moderate remediation.

### Category 4: Serious environmental incident

An incident that has caused serious environmental impact, with medium-term effect, requiring significant remediation.

Category 5: Disastrous environmental incident An incident that has caused disastrous environmental impact, with long-term effect, requiring major remediation.

Declares and certifies the claim of each indigenous cultural community over a corresponding territory earlier identified and delineated as ancestral domain.

### Certificate of Ancestral Domain Title or CADT

A certificate of title that is issued by the office of the National Commission on Indigenous Peoples (NCIP). It completes the people's legal claim to a territory.

### Commodity business

Community complaints and inquiries

Any issue raised by a member of the community relating to the operation in question, whether resolved or not. This can relate to an inquiry or other incident or noncompliance.

# Department of Environment and Natural Resources or DENR

The primary government agency responsible for the conservation, management, development, and proper use of the country's environment and natural resources.

# Department of Interior and Local Government or DILG

The primary government agency responsible for promoting peace and order, ensuring public safety and strengthening the capabilities of local government units (LGUs).

Department of Labor and Employment or DOLE
The primary government agency mandated to formulat
policies, implement programs and services in relation
to labor and employment. It is also responsible for
promoting gainful employment opportunities, developi
human resources, protecting workers and promoting
their welfare and maintaining industrial peace.

**DIFR**Disabling Injury Frequency Rate, or (number of disabling injuries X 1,000,000) / working hours where Disabling injuries = LTI + RWI.

Disabling Injury Severity Rate, or (number of days lost X 1,000,000) / working hours.

Environment Code
Local legislation passed by the provincial government of the Province of South Cotabato which includes a ban on the use of open pit mining method in the province.

Aims to increase transparency in transactions between governments and companies in extractive industries.

It recognizes Indigenous Peoples' inherent and prior rights to their lands and resources and respects their legitimate authority to require that third parties enter into an equal and respectful relationship with them, based on the principle of informed consent.

# Global Compact

The UN Global Compact is a voluntary corporate responsibility initiative to advance ten universal principles in the areas of human rights, labor, the environment and anti-corruption.

Global Reporting Initiative or GRI
Develops and disseminates globally applicable
Sustainability Reporting Guidelines to assist corporations in reporting on the economic, environmental, and social performance of their operations.

## Indophil Resources NL, IRN or Indophil

An Australian publicly-listed company incorporated in 1996, to acquire, explore for and develop gold and copper-gold opportunities in Southeast Asia.

The International Union for the Conservation of Nature and Natural Resources, also known as the 'World Conservation Union'.

### Land disturbed

### Land rehabilitated

Land disturbed by operational activities and then reshaped and re-vegetated.

Disclosing all information of significant concern to stakeholders for assessing our economic, environmental, and social performance.

## Mines and Geosciences Bureau or MGB

# National Commission on Indigenous Peoples or NCIP

The primary government agency in the Philippines that formulates and implements policies, plans and programs for the recognition, promotion and protection of the rights and well-being of IPs and the recognition of their ancestral domains and their rights thereto.

Any abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to factors associated with employment.

Recycled water

Water that has been used at least once in a process within the operation or at another operation within the organization; that would otherwise be part of a waste stream; and if not re-used, would require the input of raw water.

## Rights-based approach to development

A conceptual framework for the process of human development that integrates the norms, standards and principles of the international human rights system into the plans, policies and processes of development.

SD Assurance Program
An independent audit program that assesses the systems and performance of Xstrata's sites and commodity businesses against Xstrata's SD Policy and Management Standards.

SMI's SD performance is monitored and evaluated by the SMI SD Committee on a monthly basis.

A set of 17 standards which set out corporate performance expectations for each operation and against which sites and commodity businesses are independently audited through the Xstrata SD Assurance Program.

Social Involvement Plan or SIP

A plan produced by each commodity business unit of Xstrata, which sets out their engagement with local communities, and details the range of initiatives to be undertaken and the resources, financial and other, dedicated to this area of their business.

Defined in the Brundtland Report as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

# Sustainable Resettlement

A development-based approach where resettlement is not merely concerned with the physical relocation of people out of the Project area. Sustainable resettlemen components include: housing and infrastructure development; livelihood and enterprise development; health services delivery improvement; improved access education; social infrastructure and capability building.

# Technical Education and Skills Development Authority or TESDA

The government agency in the Philippines tasked to manage and supervise technical education and skills development of the country's human resources. TESDA formulates staff and skills plans, sets appropriate skills standards and tests, coordinates and monitors staff policies and programs.

Total recordable injuries is a measure that includes all injuries other than first aid, i.e. lost time injuries (including fatalities); Restricted work injuries; and Medical treatment injuries.

Total recordable injury frequency rate = (LTI + RWI + MTI) x 1,000,000/hours worked.

VPSHR are a set of non-binding principles developed in 2000 to address the issue of balancing safety needs while respecting human rights and fundamental freedoms.





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