



**STRENGTHENING**  
THE CORES FOR  
SUSTAINABLE GROWTH





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## AT A GLANCE







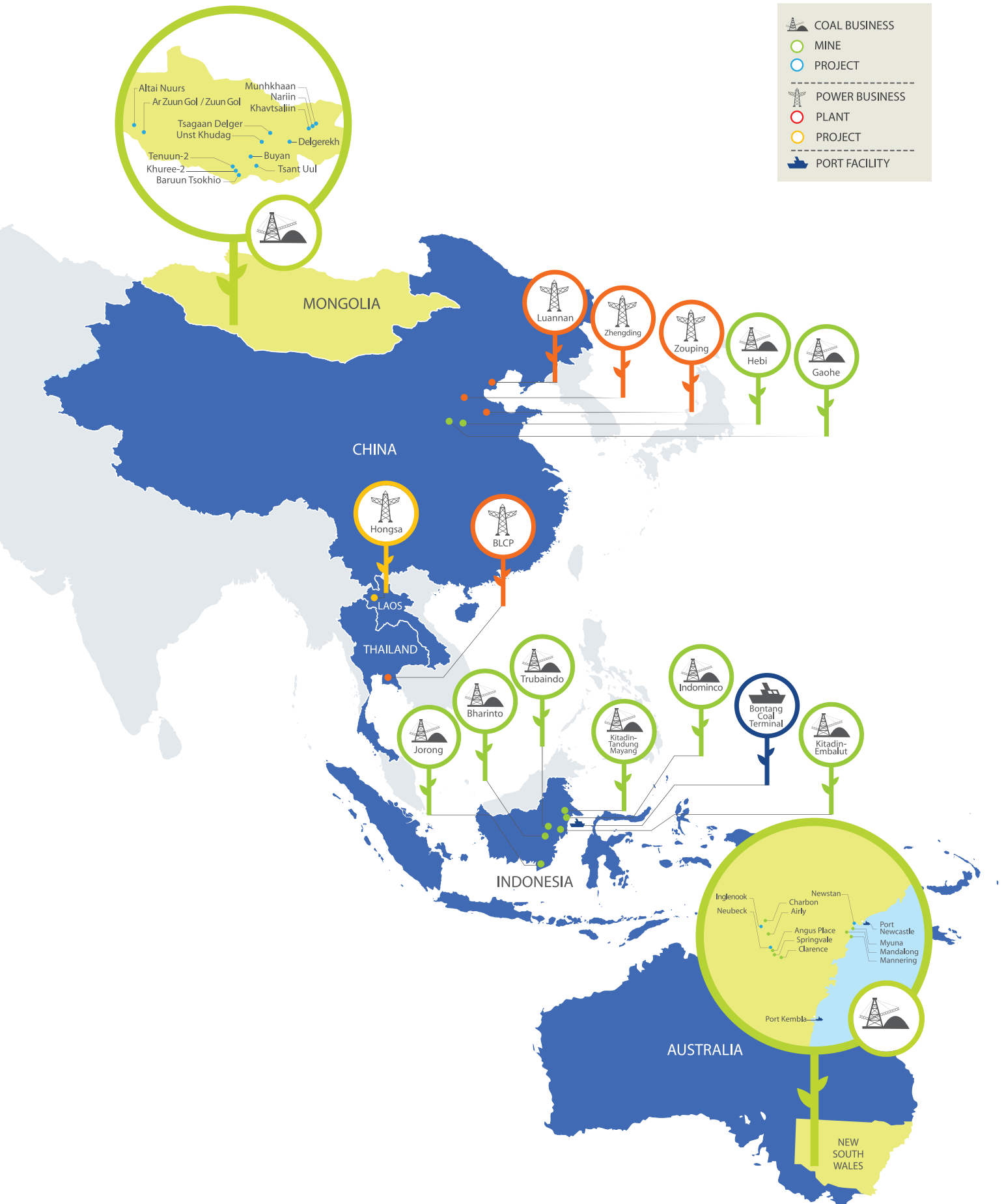
### **Vision**

To be an energetic Asian energy provider of quality products & services and be recognized for its fairness, professionalism, and concerns for society and environment.

### **Mission**

- To develop businesses in the fields of energy in pursuit of Asian leadership position.
- To diversify and invest in strategic businesses to enhance competitiveness.
- To provide a variety of quality products and services with commitment, reliability, and flexibility.
- To conduct business in a socially, ethically and environmentally responsible manner.
- To build sustainable value for shareholders, customers, business partners, employees, local communities, and to be a good citizen to host governments.

# MAP OF OPERATION



## ABOUT BANPU

Banpu, has over 30 years of accumulated experience in the domestic and international coal industry. The Company operates coal and coal-related businesses – ranging from investment, exploration and development, to production of both thermal and coking coals. Our expertise lies in open-pit and underground coal mining operations, as well as coal-fired power generation. At present, we have business bases in Thailand, Indonesia, Australia, China, Laos, and Mongolia.

### Our Business in Thailand

Although mining operations in Thailand are closed due to the depletion of coal reserves, Banpu has poured its expertise in coal exploration and production into business expansion and operations overseas. Being the pioneer of the private power plant development project in Thailand, at present, the Company holds a 50% share in BLCP Power Limited, a 1,434 MW coal-fired power plant in Map Ta Phut Industrial Estate, Rayong province.

### Our Business in Indonesia

Banpu entered Indonesia's coal industry in 1991 and, with its continuous growth, Indonesia has become one of Banpu's significant production bases. Currently, PT. Indo Tambangraya Megah Tbk (ITM), Banpu's subsidiary company listed on the Indonesia Stock Exchange, manages 6 coal mines in Kalimantan: Indominco, Trubaindo, Jorong, Kitadin-Tandung Mayang, Kitadin-Embalut, and Bharinto. These mines produce a range of bituminous and sub-bituminous thermal coals suitable for both export and domestic consumption, with a total annual production capacity of around 27 million tonnes and an annual port handling capacity of 21 million tonnes.

### Our Business in Australia

To enhance growth, corporate value, and geographical diversification, Banpu wholly acquired Centennial Coal Company Limited (Centennial) in 2010. Centennial is a coal mining and marketing company, supplying thermal coal and coking coal to the domestic and export markets. It operates 9 coal mines\*, both underground and open-pit, in the North and the West of New South Wales: Airly, Angus Place, Charbon, Clarence, Mandalong, Mannering, Myuna, Newstan and Springvale, with a total annual production capacity of around 20 million tonnes.

### Our Business in China

Banpu expanded its coal business into China for more than 10 years, with its subsidiary, Banpu Investment (China) Company Limited (BIC), managing all operations. At present, the Company holds a 45% stake in Shanxi Gaohe Energy Company Limited, which operates the Gaohe underground mine in Shanxi Province. The Gaohe mine started its commercial production in late 2012, with a maximum capacity of 6 million tonnes per annum from 2013 onwards. In addition, Banpu holds a 40% stake in Hebi Zhong Tai Mining Co., Ltd. (HZTM), which operates the Hebi mine in Henan Province with an annual production capacity of 1.5 million tonnes.

In 2006, Banpu expanded its investment into China's power industry through BIC, which now operates and manages three Combined Heat and Power (CHP) plants in northern China: Luannan and Zhengding in Hebei Province, and Zouping in Shandong Province. The three plants have a total power capacity of 248 MW and a steam capacity of 1,732 tonnes per hour.

### Our Business in Laos

The 'Hongsa Power Plant' project – a mine-mouth power plant in Hongsa District, Xayaburi Province in Lao PDR – is Banpu's latest power plant development project in cooperation with Ratchaburi Electricity Generating Holding Public Company Limited (RATCH) and Lao Holding State Enterprise (LHSE), a state-owned enterprise of Lao PDR. The 'Hongsa Power Plant' project is now under construction, with commercial operations scheduled to start in 2015.

### Our Business in Mongolia

In late 2011, Banpu successfully acquired Hunnu Coal Limited, a specialized company in coal exploration and mine development with around 15 sites of thermal and coking coal deposits in Mongolia. In 2012, the 'Tsant Uul' project commenced coal production with a capacity of 1 million tonnes.

In addition, according to its long-term corporate strategy, Banpu continues to study and explore alternative energy possibilities.

\* Airly and Mannering mines have been under Care and Maintenance stage since November 2012.



## CEO MESSAGE





In today's world in which we currently operate our business, there are various issues we have to handle carefully. Due to limited resources, setting priorities and allocating them properly become one of our top requirements so as to make use of those rare resources in the most effective and efficient manner.

In 2013, the overall coal market price continued to drop in consequence of an excess supply which in turn had an impact on our revenues. Nonetheless, we had adjusted our business strategies by emphasizing on cost management to cope with market situations and to incur the least undesirable effect.

Even the time we faced a great challenge of an economic downturn, we actively focused on long-term future by defining three key elements for Banpu sustainability. <sup>(G4-19)</sup> They are as follows:

**Competitiveness:** We are strongly committed to build and to enhance competitiveness including people development, operational excellence and technical development.

**Localization:** Our production bases are geographically diverse in different countries worldwide. We recognize our responsibility to be a good corporate citizen and the vital role we play in the development of those countries and societies in which we operate. Therefore, we are dedicated to conduct our business responsibly, ethically and lawfully in all matters and we are determined to fully comply with good corporate governance practices.

**License to Operate:** Our business comprising of coal mines and power plants sometimes cause a negative impact on the surrounding environment. In order to gain recognition from community and society, we are strongly committed to ensure the well-being of our employees, communities, society and environment.

Regarding our performance on environmental issues in treating acid water from mining in Lumphun province, our waste water treatment system applies natural techniques, resulting in efficiency in operating costs and maintenance activities and leading to 10-year system life cycle. Our system has been awarded first-prize in ASEAN Coal Award 2013 in special projects.

Our major breakthroughs which include three power plants in China have been certified with 3in1 QSE management system. The system encompasses Quality Management System (ISO 9001), Occupational Health and Safety (OHSAS18001) and Environmental Management System (ISO 14001). We are the first and foremost industry in that area, ensuring that our power plants are highly reliable in transmitting power and steam. Our safety standards meet the public expectation and we also set other measures that help reduce undesirable impact on the environment.

In addition, our 2012 sustainability report was awarded outstanding prize from CSR Club of the Thai Listed Companies Association, in cooperation with the Office of the Securities and Exchange Commission. Our report received a remarkable compliment regarding accurate environmental management with a sustainable approach in every single business unit.

Finally, I would like to thank you all including our employees, customers, partners, shareholders, government agencies and community for the hard work and commitment to cooperate, support and promote Banpu which in turn help encourage us to continue to create value in a responsible manner to ensure mutual sustainability.



**Chanin Vongkusolkrit**

CEO and Chairman of the Sustainable Development Committee

## ABOUT THIS REPORT

In this 2013 sustainability report, we chose to present more of material information by dividing this report into sections based on elements deemed vital for our sustainable growth and development. These elements comprised of competitiveness, localization and license to operate. Other elements can be seen from the report index according to Global Reporting Initiatives (GRI) format for ease of use. To gain wider accessibility, the report was prepared in two versions, Thai and English, which can be downloaded from our website. As for those who prefer it in written format or in the form of CD, they can contact the Sustainable Development Division directly in which the contact information is at the index section of this report.

This sustainability report is based primarily on the 4<sup>th</sup> generation of the Global Reporting Initiative (GRI) which does not show the disclosure level as A, B and C, but specified it as core and comprehensive. We consider our disclosure level as “in accordance” – core which is the disclosure of at least one indicator per one material aspect.

### **Boundary** (G4-17, G4-18, G4-20, G4-21, G4-23)

The boundary of 2013 sustainability report is the performance report concerning with the business that we hold more than 50 percent interest. For the 2013 report, the content covers more scope than the previous one; that is, it includes the operational performance report of the Centennial Coal, our subsidiary in Australia. Therefore, the 2013 sustainability report encompasses our coal business in Indonesia, Australia as well as our power business in China. Nonetheless, our Hunnu coal mine project in Mongolia is in the process of identifying sustainability indicators according to Banpu's standards even though we own 100 percent stake of this coal mine. Hence, Hunnu's performance has not been included in this Banpu's sustainability report.



For those who are interested in studying the sustainability report of each business in particular, our subsidiaries have reported their sustainability development progress as well. Interested individuals can learn from their website, such as Centennial Coal at [www.centennialcoal.com.au](http://www.centennialcoal.com.au) and PT.Indo Tambangraya Megah Tbk at [www.itmg.co.id](http://www.itmg.co.id) which is our coal mine in Indonesia and this year it organized its sustainability report for the first time. As for other businesses in which we have either direct or indirect investment less than half, and does not directly participate in their management, but only supervise through these companies' Board of Directors; for example, coal business in China, BLCP Power Plant in Thailand and Hongsa Power Plant project in Laos, their performance will not be included in this sustainability report.

### **Next Step**

We are determined to continually improve the quality of our sustainability report, hoping to enhance information disclosure as well as to be able to assess its credibility by the third party in the future.

## STAKEHOLDER ENGAGEMENT (G4-24, G4-25, G4-26, G4-27)

We trust that business can be sustained only when the economic, environmental, and social drives are well balanced among stakeholders, both internal and external ones who create impact and may be impacted because of our operations. We focus our sustainability development efforts on stakeholder engagement throughout our supply chain.

To gather the concern from stakeholders, we have implemented various methods according to appropriateness for each group,

either by ourselves such as interviews with customers by our sale department and discussion with government agencies by management visit, and by external consultants such as Perception survey with coal - mine surrounding communities and Engagement survey with our employees.

The expectations from various groups of stakeholders are shown in the table below.



Groups of Stakeholders	Expectations	Engagement
Customers	<ul style="list-style-type: none"> <li>• Quality products at reasonable prices</li> <li>• On time delivery of products in accordance with specified quality and quantity</li> <li>• Other services that promote economic, social, and environmental development</li> <li>• Business agreements that are fair to both parties</li> </ul>	<ul style="list-style-type: none"> <li>• Customer satisfaction surveys</li> <li>• Channels for customer feedback on quality, quantity, and safety of products and services</li> <li>• Customer visits</li> <li>• Technical support on product utilization and services to enhance product effectiveness and ensure utmost benefits for customers</li> <li>• Response to customers' requests for product information disclosure or reports</li> <li>• Joint projects on environmental and social initiatives</li> </ul>

Groups of Stakeholders	Expectations	Engagement
Employees	<ul style="list-style-type: none"> <li>• Performance-based pay in relation to targets set in annual action plans</li> <li>• Employee engagement</li> <li>• Human resource development</li> <li>• Respect for individuality and dignity of human beings</li> <li>• Appropriate remuneration and welfare in line with economic and social conditions</li> <li>• Safe working conditions</li> <li>• Fair treatment</li> <li>• Development of competency and skills required for assigned tasks and in line with their career path</li> <li>• Employees' best effort to perform tasks</li> <li>• Employees' commitment to "Banpu Spirit"</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of performance-based pay in relation to targets set in annual action plans</li> <li>• Employee engagement in performance evaluation in order to reach targets set in annual action plans</li> <li>• Annual performance evaluation based on behavioral factor and Key Performance Indicator (KPI)</li> <li>• Employee engagement surveys</li> <li>• Communication channels between Human Resources and employees, such as e-newsletters and meetings with other departments, etc.</li> <li>• Improvement of Individual Development Program (IDP) and competency system</li> <li>• Communication on career development, such as job evaluation system, key performance indicator system, and competency system</li> <li>• Competitive remuneration system</li> <li>• Development of career succession plan and HR programs for Indonesian employees</li> <li>• Channels for complaints</li> <li>• Employee involvement in management of welfare and working conditions, such as Welfare Committee, Occupational Health and Safety Committee, etc.</li> <li>• "Banpu Spirit" behavioral surveys</li> <li>• "Banpu Spirit" campaigns</li> <li>• Support to employees' social activities, including sport clubs, volunteer clubs, etc.</li> </ul>
Contractors	<ul style="list-style-type: none"> <li>• Equal opportunity and fairness in contractor selection</li> <li>• Fair contract rates in line with economic and social conditions</li> <li>• Safe working conditions</li> <li>• Business agreements that are fair to both parties</li> <li>• Commitment to environmental, safety, and social development initiatives</li> </ul>	<ul style="list-style-type: none"> <li>• Fair and transparent contractor selection and evaluation process</li> <li>• Regular meetings with contractors to track and improve production, safety, and environmental performances</li> <li>• Annual Executive Mine Contractor Meeting in Indonesia to inform contractors about policies, key issues, and concerns</li> <li>• Contractor Management System applied to Indonesian operations</li> </ul>
Shareholders	<ul style="list-style-type: none"> <li>• Short- and long-term returns on investments</li> <li>• Business growth and stability</li> <li>• Transparency in business management and engagement of minor shareholders</li> </ul>	<ul style="list-style-type: none"> <li>• Annual General Meeting of Shareholders which enables shareholders to exercise voting rights and give comments or raise questions on equal basis</li> <li>• Annual Report and other reports, such as SEC 56-1 report, press releases, etc.</li> <li>• Channel for shareholder feedback</li> </ul>



Groups of Stakeholders	Expectations	Engagement
Business Partners	<ul style="list-style-type: none"> <li>• Fair returns on investments for both parties</li> <li>• Commitment to agreements</li> </ul>	<ul style="list-style-type: none"> <li>• Board meetings at subsidiary and associated companies at which business partners can voice opinions and exercise rights</li> </ul>
Creditors	<ul style="list-style-type: none"> <li>• Fair returns on loans and service fees</li> <li>• Ability to repay debts and punctual payment</li> <li>• Commitment to agreements</li> </ul>	<ul style="list-style-type: none"> <li>• Road shows</li> <li>• Regular visits to provide performance and business updates</li> </ul>
Capital Market	<ul style="list-style-type: none"> <li>• Company performance</li> <li>• Corporate governance</li> <li>• Risk management and business strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Analyst meetings</li> <li>• Presentation on Opportunity Day organized by Stock Exchange of Thailand</li> <li>• Road shows</li> <li>• Publication of Annual Report and other reports</li> <li>• Exclusive executive interviews</li> </ul>
Suppliers	<ul style="list-style-type: none"> <li>• Fairness and equal opportunity in procurement process</li> <li>• Fair prices</li> <li>• Business agreements that are fair to both parties</li> <li>• Commitment to agreements</li> </ul>	<ul style="list-style-type: none"> <li>• Transparent and accountable procurement process</li> <li>• On time payment policy</li> </ul>
Communities	<ul style="list-style-type: none"> <li>• Care for environment</li> <li>• Improvement of life quality</li> <li>• Positive economic and social contributions while preserving local traditions</li> </ul>	<ul style="list-style-type: none"> <li>• Constant communication with community leaders about planning and progress of community development projects</li> <li>• Cooperation with local authorities to support development projects for utmost benefits of people and communities</li> <li>• Coordination with local educational institutions in reviewing development projects that are most suitable to particular communities</li> <li>• Perception surveys</li> <li>• Community visits on various occasions</li> <li>• Community development projects that engage Company, community representatives, and government agencies</li> </ul>
Government	<ul style="list-style-type: none"> <li>• Compliance with regulatory requirements</li> <li>• Care for environment</li> <li>• Technology transfer</li> <li>• Job creation</li> <li>• Tax payment</li> <li>• Certainty in and proper timing for issuing laws and regulations</li> <li>• Fair laws and regulations</li> <li>• Integrated operation based on engagement of major stakeholders, including local government agencies, local educational institutions, and mining contractors</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance with laws and regulations and timely reporting of such compliance</li> <li>• Payment of taxes, royalties, and other fees set by government</li> <li>• Support to governmental initiatives/activities</li> <li>• Occasional visits to government agencies</li> <li>• Community development projects that engage Company, community representatives, and government agencies</li> </ul>

# PRODUCTS & SERVICES

## Coal Business

### Coals Business in Indonesia Indonesia's Coal Market

Coal production in Indonesia in 2013 grew by 11% year-on-year, with an estimated total production of 475 Mt. Production of almost all major producers are growing despite the market being oversupplied and falling prices. Large growth comes from small producers which mostly produced low quality coal.

Meanwhile, domestic demand was estimated at around 75 Mt, a growth of 7% year-on-year due to start up of some coal-fired power plants under government fast track program, which was delayed from its original plan. Indonesia continued to be among the biggest thermal coal exporters, with export in 2013 likely reaching 400 Mt, a 12% increase from 2012.

### ITM's Coal

In 2013, PT. Indo Tambangraya Megah Tbk (ITM), our subsidiary in Indonesia produced 29.4 million tonnes of coal from our six mines located in different parts of Indonesia. Some coal was shipped directly from particular mine to customers, while some coal was blended from several sources before shipped to match the quality specified by an individual customer. Our coal products can be classified as per quality into five main categories as follow:

- **HCV (High Calorific Value)** is the highest quality rank from our Indonesia operations. It has high heating value of approximately 6,700 kcal/kg on an air dried basis while sulfur content is lower than 1%. In addition, its ash and moisture property is also low, making it popular for market demand.
- **MCV (Medium Calorific Value)** is also of a high rank coal and our main product. MCV has heating value of approximately 6,500 kcal/kg on an air dried basis, sulfur content of less than 1% as well as low ash and moisture property. It is suitable for use in power plants and cement factories. Our well known brand from this category is Bontang MCV from Indominco mine. Moreover, this product variant is also produced at Trubaindo mine, another key Indonesia mine.



- **High Sulphur** is a high sulphur coal. Products from this category is very diverse in terms of heating value, ranging from 6,000 to 6,700 kcal/kg on an air dried basis, and sulfur content of 1.2-2.2%. Coal of this kind is normally sold to the cement industry market and power plants that are equipped with sulfur capture system.
- **J-1** is a sub-bituminous coal, produced at Jorong mine. It has high moisture and low heating value. However, J-1's strong point is it consists of very low sulfur content.
- **Embalut** belongs to the high rank coal variant. Produced at Kitadin-Embalut mine, it has medium heating value but its ash property is suitable for use in the metal producing industry.

### ITM's Market

Our primary customers are large power plants with demand for high coal volume to generate electricity. These customers are located in many parts of the world, namely Japan, South Korea, Taiwan, China, India, Malaysia, Philippines, Indonesia, and several countries in Europe. Most of them are government enterprises or large public companies that require security and reliability of fuel supply; they opt to purchase coal from producers who provide high reliability. Last year, we sold 82% of our Indonesia coal to this power market. The rest is sold to the cement, petrochemical, paper, plastic and chemical industries.



## Coals Business in Australia

### Australia's Coal Market

Coal is abundant in Australia, especially across the eastern seaboard states of New South Wales and Queensland where high sub-bituminous and bituminous quality black coal is prevalent. A recent Australian Energy Resource Assessment noted that there are over 100 operating mines and more than 35 new mines that are in various stages of development in Australia. Further, the Australian Bureau of Agricultural and Resource Economics (ABARE) observes that Australia:

- is the world's fourth largest coal producer;
- is the world's largest coal exporter, being the largest coking coal exporter and second largest thermal coal exporter; and
- possesses the world's fourth largest coal resource (with approximately 76.4 billion tonnes).

### Centennial's Market

Financial strength and viability are at the center of business sustainability, and accordingly, Centennial, our subsidiary in Australia seeks to maintain a balanced sales portfolio between domestic and export markets.

Coal contracts with domestic generators tend to be for the longer-term, with volumes and prices negotiated and settled in advance. This provides Centennial with a high degree of business certainty for a substantial portion of its output. Domestic sales are primarily delivered to mine mouth power stations, for which Centennial has extensive delivery infrastructure, including private haul roads and conveyor belts. This avoids a reliance on transporting coal via public roads, which is a significant environmental, social and cost advantage. While the nature of some of our long established domestic markets in the western coalfields is set to change, Centennial is currently boosting its export infrastructure. The full commissioning of the upgraded Lidsdale Siding train loading facility (expected mid-2014) will not only introduce state of the art technology, but also provides increased access for our western mines to export markets.



The balance of Centennial's production is largely sold into Asia's premium export markets (Japan, Taiwan and Korea) where higher quality Australian coals are blended with coal sourced from elsewhere, providing the customer with the ability to achieve a blended price and quality. Coal is transported via rail to Port Kembla Coal Terminal (PKCT) or Newcastle Coal Infrastructure Group (NCIG) for export.

Our infrastructure, approach and geographic locations seek to maximise synergies between our operations and provide high quality reliable coal supplies to our customers. In 2013, Centennial produced 13.6 million tonnes of coal from our several mines in the North and the West of New South Wales.

### Responsibility for Coal Products

We put our priority on production process and product quality in order to produce products that are safe for users and the environment. Therefore, we continually improve our product quality by blending coals from different mines to produce different product combinations to meet the quality requirements of each individual customer, allowing them to use coal with maximum efficiency. It is our policy to not only produce products whose quality matches an individual customer's requirements but also to cause no harms to users. We have employed appropriate technology to achieve maximum efficiency and effectiveness in our production process and coal quality control as follow:

- **Shipment Demand Pull**

Latest computerized systems are employed in our quality control process throughout coal supply chain to increase productivity, reduce losses during production, obtain the quality of the product that meet the our customers' requirements, and achieve on-time delivery.

- **Coal Quality Improvement at External Ports**

Recognizing the importance of the quality of our products, we have expanded the preventive measures of coal impurities to the third-party facilities at which we use their services. We hire external surveyors to monitor coal stock yard throughout the process including transporting coal to stock yard, piling stocks, transporting coal out of the stock yard to the fleets until delivering to customers. The same procedures are adopted at our own ports as well as those of the third parties' to ensure that no impurities mixed with our products.

Given the specific characteristics of the coal products, our customers possess wealthy knowledge and expertise of coal; it is unnecessary to have product packaging or label. However, we have prepared Material Safety Data Sheet, MSDS to our customers should they request one. Moreover, since our customers are large scale manufacturers who are under strict government regulations regardless of where they are located, one can rest assured that their uses of our products will be in compliance with each country's regulations and, hence, will cause the least effect possible on environment and community.

In 2013, there were neither reports of the dangers or harms caused by using our products, community's complaints to our customers nor government's warning on use of product's causing problems to environment or community.

### Customer Relationship Management (G4-26, G4-27)

Apart from safety of our products and services, we strive for our customer satisfaction in terms of quality, price, and our responsibility for all products and services. We assign customer service representative to provide customers with possible assistance, explore and analyze their needs and expectations, conduct satisfaction surveys, and handle customer complaints. Data gathers from customers are actively utilized in product and service improvement to better meet the different needs of our customers.

With updated database and market intelligence from customer site visits, we are able to provide our customers with excellent after sales services. Yet, we continue our effort to improve our services by listening to customers' voices. We provide both direct and online channels to receive their complaints to meet the customer's changing needs.





- **An inquiry and complaint tracking system**

To ensure that all feedbacks from customers are taken care of, we provide channels for customer opinions via direct customer service representative or our website on which name, email address, and phone numbers of our customer service representatives are provided.

Upon receiving complaints from customers, we have a system for recording such complaints, an assigned person to handle the complaints, and a tracking system to ensure that all complaints are taken care of within an appropriate time.

- **Quarterly operational results report to customers and stakeholders**

We provide our customers with quarterly operational results reports to give them confidence that our production and delivery are in line with the agreements and that we can meet the needs of our customers in the long run.

- **Communication channels with customers**

Our communication with customers is done regularly via e-mails, telephone calls and faxes. Also, our marketing team frequently visits customers to maintain good relationship and to give them updates on our information to ensure customers that we are capable of producing and delivering coals as promised.

- **Customer visits**

Apart from our sales representatives, we also send out staffs from production and quality control department and coal utilization experts to visit customers, not only to exchange knowledge and to follow up on each adjustment but also to listen to customers' feedback. We organize management visits, events when our top management makes a trip to meet with our customer management, to exchange opinion, listen to customer's feedbacks, and strengthen relationship between the two firms even further.

- **Technical visits**

We regularly sent coal utilization expert to visit customers to advise and assist them in optimizing coal utilization, which will reduce customers' cost and environmental impact.

- **Teleconference calls to update our customers on coal market situation**

- **Customer satisfaction management**

With an aim to maximize our customers' satisfaction, we appoint customer service representative to conduct a satisfaction survey to gather data in qualitative as well as quantitative dimensions. We ensure the complete and transparency of data collection to obtain useful information to improve our products and service. Our survey is being conducted every two years due to the nature of business and products in a commodity sector.

## Customer Privacy

For customer privacy, we insist on protecting customer's confidential information from loss, theft, misuse, unauthorized disclosure, modification, and unauthorized destruction. Our track records in 2013 have proven that there were no complaints regarding the mentioned issues.





## Power Business

### Power Business in China

#### China's Power Business

Our power business in China enjoyed a continual growth thanks to growing demand from both the industrial sector and domestic consumption. Here are the growth rates of electricity consumption in China:

	Unit	2009	2010	2011	2012	2013
Growth Rate of Total Consumption	%	6.0	16.0	11.7	5.5	7.5
Growth Rate of Industrial Sector Consumption	%	4.2	17.0	11.9	3.9	7.0
Total Production Capacity	MW	874,073	941,372	1,055,760	1,143,060	1,250,000

Due to effects on air quality from the industrial sector, the Chinese government has laid several stringent policies on energy efficiency and pollution control. Nevertheless, since our combined heat and power plants possess higher efficiency and better pollution control, they receive more support from the Chinese government as a result. The list of benefits includes guaranteed power purchase agreements with local power authorities and an exclusive right to sell steam and heat in designated districts.

Production wise, we manage our business to be in line with market opportunities. In winter time when demand for steam is high, we dedicate our full capacity to producing and distributing electricity and steam. During other times when the need for both

power and steam is low, we would shift our focus to production efficiency to reduce production costs. This strategy allows us to manage our costs and sales effectively. The competitiveness is also attained through the achievement of production and sales targets.

We remain strong on our commitment to comply with the new Chinese's Government emission standards, which will soon take effect in July 2014. In 2013, we have put our additional investment in flu-gas desulfurization technology to improve the air quality at Luannan and Zouping power plants and dust capturing technology at Zhengding power plant. This is to ensure that our combined cycle power plants operate in compliance with the governmental environmental requirements.





### BIC's Product & Customers

At present, Banpu Investment (China) Company Limited (BIC), our subsidiary in China operates three combined heat and power plants located in northern China, with total capacity of 248 MW of electricity and 1,732 tonnes per hour.

Power Plant	Location	Capacity (MW)	Steam Generation Capacity (Tonnes/Hr)
Luannan	Hebei Province	100	532
Zhengding	Hebei Province	48	370
Zouping	Shandong Province	100	830

Main products from these combined heat and power plants are electricity and heat. The latter is distributed in the forms of steam and hot water for industrial and household customers.

We pay close attention to quality of our products and services. Readiness and stability in the production and sales of both power and steam is key to our customer satisfaction. Maintaining good customer relationships through honesty and mutual benefits enables us to win trust and confidence from customers. Meanwhile, contracts signed with industrial steam customers allow us to adjust selling prices in case fuel prices exceed the rates stated in the contracts. This helps us better manage increasing fuel costs.

In conducting business with the government sector, relationships with local authorities are created based on the mutual goal of providing fundamental utilities and building trust with local communities. Our consistent support on community development program brings us trust and acceptance. In return, when affected by external factors, we received helpful support from local authorities to alleviate the negative impact to our operations, for example, in terms of financial support or permissions to increase steam prices.



## COMPETITIVENESS <sup>(G4-19)</sup>

In managing the business of commodity products like ours, product prices mostly vary according to demand and supply of the global market which is beyond our control. Therefore, various factors are required for us to bring good business performance. These factors include the development of product quality, customer satisfaction, and effective management of production cost. We, then, developed 3 elements in competitiveness: People development, Operational excellence and Technology development.

People development is concerned with preparing employees in terms of skills, capabilities and quantity to suit our long term strategies. People development also means initiating people management system that leads to employee of choice in the labor market.

Operational excellence is the selection of production and maintenance system in which every employees can participate, or what we call "Total Productive Maintenance" (TPM). TPM is the system with continuous improvement and cooperation from employees at every level with the objective to reduce production cost, production inefficiency and machinery loss.

Technology development is about employing state of the art technology in production, which is considered a leapfrog development that helps improve production efficiency. We have utilized advance technology so as to be more adaptive with different coal mine production processes; for example, coal mine production planning, machinery installation to improve efficiency in transporting coal etc.



# PEOPLE DEVELOPMENT

## Our Management Approach

Our human resource management is based on the fundamental believe that our employees are one of our valuable assets. The organization's success depends largely on our employees' competency and behavior. Giving an equal opportunity to employees at all levels of the organization regardless of their race, language and gender and treating them with fairness in every operation of human resource management, we focus on accomplishing a common goal which is deemed material and must be implemented with strong commitment.

We strongly believe that, for our business growth and sustainability, human resource management is a major factor that leads us to success. We value the importance of human resource management and development to cope with changing business situations. Our key concerns regarding human resource development are fairness and equality, performance-based principle and the competency-based principle.

To strengthen our sustainable growth, we have institutionalized the "Banpu Spirit", the corporate shared values consisting of Innovation, Integrity, Care and Synergy as a way of working and living together for all our employees in Thailand as well as in other countries.

In 2013, we considered material issues of human resource development that were in line with our strategies and integrated them into our annual operation plan. These issues are as follows:

- Developing people to be adaptive to change and strong leadership
- Working with the strong culture "Banpu Spirit"
- Expatriate manpower planning

## Developing people to be adaptive to change and strong leadership

Due to high competition and constant business changes, we realize that encouraging our people to be ready for such changes is a key factor for our business sustainability. To support these objectives, we had established:

### • Development of Knowledge Management System

We plan to develop the knowledge management system, organize technical training programs for employees by experts from Indonesia. In addition, we set up the knowledge management agent to undertake knowledge management life cycle process as well as introduce knowledge sharing awards to our valuable employees.

### • Succession planning

We had identified 44 percent of successors in our succession plan and had fully accomplished the development plan for those successors.

### • Establishment of the career management system in each division

We had completed the framework and guidelines for the career management in each division and will implement them in the first quarter of 2014.

### • Development programs for executives and employees

We had initiated various training programs from the employees level up to the executive level in order to develop their potentials for future job promotion. The details of these programs are provided as the table below.

Programs	Progress in 2013
Banpu Senior Leadership Development Program (BSDP)	<ul style="list-style-type: none"> <li>• Two selected executives to join the Executive Development Program (EDP) organized by the Thai Listed Companies Association</li> <li>• One executive to join the Orchestrating Winning Performance organized by the International Institute for Management Development (IMD) in Singapore</li> <li>• One executive to participate in the One-on-One coaching program</li> </ul>
Banpu Leadership Development Program (BLDP)	<ul style="list-style-type: none"> <li>• 20 Vice Presidents from Thailand, Indonesia, Australia and Mongolia to join Banpu Leadership Development program (BLDP). The participants evaluated this program succession rate at over 80%. The program has been held for 8 consecutive years since 2005.</li> </ul>
Banpu Manager Development Program (BMDP)	<ul style="list-style-type: none"> <li>• 19 Division Managers from Thailand, Indonesia, China and Mongolia to join this program. The participants evaluated this program succession rate at over 80%. The program has been held for 5 consecutive years since 2008.</li> </ul>
Banpu Section Manager Development Program (BSMDP)	<ul style="list-style-type: none"> <li>• 22 Section Managers had accomplished this program which was first introduced in Thailand in 2013. The program is expected to increase its participants and expand to other countries in the following year.</li> </ul>



Training on Banpu Leadership Development Program (BLDP)



Training on Banpu Manager Development Program (BMDP)

Apart from human resource development through the programs described above, we also established standards for employees' competency profile, including the Individual Development Plan (IDP) in 2013 as seen from the following table:

Employee level	% of total no. of employees in each job level who completed competency assessment
Senior Vice President and above	47%
Vice President	43%
Division Manager	51%
Section Manager	50%

Employee level	% of total no. of employees in each job level who completed IDP development
Senior Vice President and above	20%
Vice President	36%
Division Manager	38%
Section Manager	40%

Moreover, we also held a job rotation program across countries in order to increase employees' competency and operational capabilities and learn to work with diverse cultures, races and religions which are prepared for future business opportunities. In 2013, there were employees in job rotation program as 2 Thai employees went to work in Australia, other 2 went to Singapore and one Indonesian came to work in Thailand.

### The Introduction of Banpu Section Manager Development Program (BSMDP) in 2013

From the overwhelming success of our 3 executive development programs; that are, Banpu Senior Leadership Development Program, Banpu Leadership Development Program, and Banpu Manager Development Program which has been provided for over 200 executives then, in 2013, we initiated Banpu Section Manager Development Program to prepare our Section Managers and to ensure that in the future they will be a major driving force and that they will be well equipped to succeed their senior executives.

We started to implement this program with Bangkok employees and expand to our subsidiaries by employing the development programs similar to those provided for the executives. Employees who join this program have to participate in our workshop as well as the Learning Application Project (LAP).

LAP is the project for skills and competency development. It encourages teamwork by participants from different divisions. Participants will be coached and supervised by senior executives in whom the executives will give their advices so that the project can be implemented and its performance can be measured. In 2013, there were 6 learning projects as seen from the following table:



Projects	Coached by
1. How to create innovative working environment at Banpu office	Chief Executive Officer
2. Work-life balance	Deputy Chief Executive Officer
3. Healthy organization	Chief Operating Officer
4. How to institutionalize knowledge management in Banpu office	Chief Financing Officer
5. How to build effective workplace	Group Senior Vice President-Strategy and Business Development
6. How to build happy workplace in Banpu office	Group Senior Vice President-Corporate Services



### Career Development at Centennial

Each year, Centennial provides staff employees with the opportunity to undertake various diploma training courses as part of their career development. The diploma courses are delivered by the Vocational Institute of Australia (VIA) - the major management training partner of Centennial.

The courses that employees can undertake are:

- Certificate IV in Frontline Management
- Diploma of Management
- Diploma of Project Management
- Diploma of Workplace Health and Safety
- Advanced Diploma of Management

This high calibre training is for employees identified as potential future leaders. The courses are nationally accredited courses to assist in developing certain skills for both career progression and succession planning. In 2013, nearly 70 employees participated in management training.

Annually, Centennial holds a graduation day to celebrate and acknowledge the efforts of our people who have successfully completed the training. As part of this training each employee has to undertake a process improvement project at their mine site. The most outstanding process improvement project is identified and presented at the graduation. This assists to promote continuous improvement across Centennial.

All Diploma employees are expected to use the skills they have obtained in the workplace, to manage company functions and people.

Centennial is committed to increasing its employees' knowledge and skill base and such training remains part of its sustainability commitment.

### Working with strong culture "Banpu Spirit" (G4-26, G4-27)

Our success is a result of effective management policies. Our operational framework and practices are aligned with the organization's policies. Besides, our employees are adhered to the same corporate value called "Banpu Spirit" in order to build commitment of accomplishing the organization's business objectives. Our employees; therefore, can work cooperatively without any bias in gender, race and religion. "Banpu Spirit" core values consist of INNOVATION, INTEGRITY, CARE and SYNERGY as a way of working well together and living harmoniously for all employees.



To implement the corporate shared value "Banpu Spirit", we had performed the following tasks:

- Organize a working group called "Banpu Change Leader" (BCL) consisting of volunteer employees from different departments who are creative enough to come up with the activities suitable for all employee levels and devote themselves in adhering to "Banpu Spirit". In 2013, we initiated various development programs for BCL working group in Thailand; for example, "A Wake-up Call for Giants,

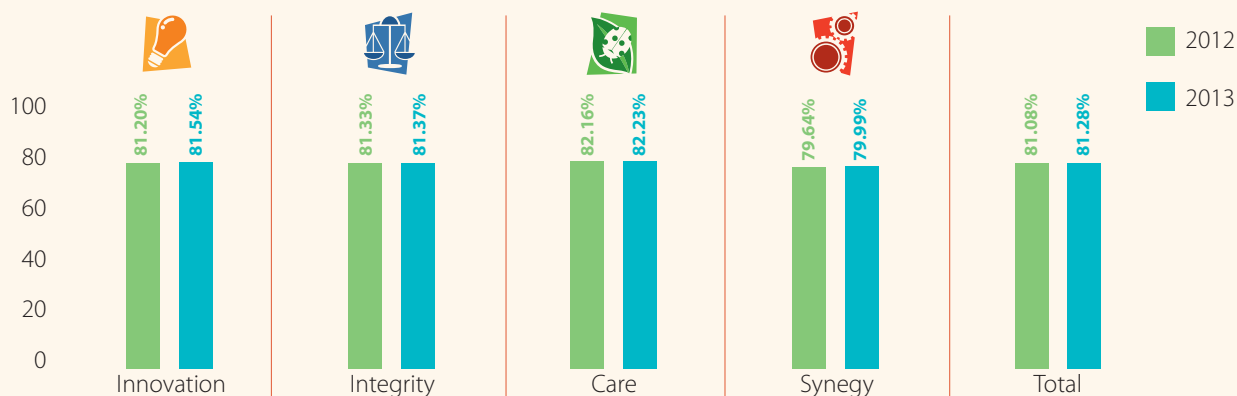
Waking up Your Power", "Effective Communication with Neuro-Linguistic Programming" program, "Influencer, a Leader for Changes" program. As for the BCL working group in Indonesia, they will start their program implementation in 2014.

- Design the Inner View Test for employee recruitment to identify their behavior and characteristics whether they comply with the corporate value "Banpu Spirit". After the test results are realized, the behavioral-based interview will be held to double-check the candidate's qualifications that best suit our requirements.
- Organize an orientation of the corporate value "Banpu Spirit", including participation in "Banpu Spirit in Action" activities for new employees, so that they will comprehend the reason behind our corporate value as well as its application to their daily lives and work. Our current employees will take part in sharing their experiences about "Banpu Spirit" with the newcomers.
- Performance review incorporated with the corporate value "Banpu Spirit" in which the score is accounted for 40% of the total score. We expect that behavior consistent with "Banpu Spirit" will be adapted to compliment the employees' daily operations and to be implemented as our future guidelines.

In addition, we conduct an annual survey regarding “Banpu Spirit” among employees in Thailand, Indonesia as well as China to reflect the benefits and the successful outcomes of “Banpu Spirit”. For 2013, the total points increase from 81.08% in 2012 to

81.28%, remains relatively above 80%. Therefore, “Banpu Spirit” is viewed as an integral part of our employees’ performance in which the score of “Synergy” core value increases the most among all 4 values.

### Banpu Spirit Survey Result



From the survey result above, we can see that “innovation” core value ranks the first among all four, reflecting a major drive of the organization’s growth and sustainability. Consequently, we encourage employees’ innovation at every level. In 2013, we organized “30 years, 30 innovations” activities in Thailand, Indonesia and China so as to promote employees at every level to express their opinions and suggestions.

Besides, we also initiated “Banpu Innovation Convention” activity, a combination of outstanding innovative projects selected from each country. The purpose of this activity is to introduce and exchange innovative ideas among participating country. The Committee for this project consists of the Chief Executive Officer and senior executives who are responsible for considering the innovation awards. This activity helps stimulate employees to come up with an innovation to improve their operations to be more efficient and effective. There were 10 excellent innovative projects presented in “Banpu Innovation Convention” forum in 2013, in which 2 projects were from Thailand, 5 from Indonesia and 3 from China. In addition, there was one case study from Australia and Mongolia each.

In 2013, we also held “30 Years 30 CSR ideas” project to open all employees to initiate social responsibility projects and to execute that particular project by themselves. We will provide financial support for projects that comply with our corporate value “Banpu Spirit”. The projects must include the presentation of new concepts of social responsibility (aligned with “Innovation”), transparent management of funding support



“Synergy Day 2013”, an activity to promote “Banpu Spirit”. We invited Thailand Women’s national volleyball team to share their teamwork experiences for employees.



“Banpu Spirit Outing, Fun Monday with Synergy”, an activity to promote employees’ synergy.

by the company (aligned with “Integrity”), public mind ready to dedicate themselves in helping the society (aligned with “Care”), and teamwork by working collaboratively with colleagues from other departments (aligned with “Synergy”). After the project was successfully launched, a number of employees participated and introduced more than 50 social responsibility projects; for example, landscape and playground renovation project for Banpu Child Development Center in Lampoon province, Computer users’ manual and maintenance guidelines projects for Wat Ta Node Tia School, Ayudhaya province, etc.

## Expatriate Manpower Planning

As each country realizes the importance of enhancing workforce potential and employment rate in their own country, they consequently start to enforce the law to limit the number of foreign workers. In 2012, the Ministry of Manpower and Transmigration of Indonesia issued 2 decrees regarding the limitation of number of foreign workers. The first one issued in February 2012 reserved some executive positions for the Indonesians only. Afterwards, in June 2012, the Indonesian government issued a second decree indicating that foreigners could not work in the educational sector. In July 2013, China had changed regulations of issuing and renewing visa for foreigners who came to work in their country. This law enforcement causes more conditions and procedures; for example, the longer duration for applying and approving visa etc.

At present, we have approximately 100 expatriates working in 6 countries: Indonesia, China, Australia, Mongolia, Laos and Singapore. Indonesia has the highest number of employees

from Thailand. Our objective of sending employees abroad is to enhance business performance in that country as well as to promote employees' career path. In order that our overseas business be managed continuously, we put an emphasis on expatriate manpower planning; thereby, had managed this plan as follows:

- For each expatriate, he/she must select local employees to pass on knowledge transfers and experience as well as to develop a readiness for job succession in the future.
- Establishment of expatriate manpower planning project in order to delegate appropriate number of expatriate based on that country's requirements and to give employees and opportunity to broaden their experiences while working abroad.
- Revision of manpower planning in each country every 3 years by taking into account Corporate strategies in expanding its business overseas.

## Participation and Membership

Organization	Membership Status	Role within the Organization	Country
Human Capital Management Club	Committee	To exchange knowledge, information related to human resource management at the association of companies in the Stock Exchange of Thailand	Thailand
HR Power Network	Member	To exchange knowledge, information related to human resource management at the association of companies in the power business in Thailand	Thailand
Indonesia HR Meeting	Member	To exchange knowledge, information, and problem solutions related to human resource management at the association of companies in the mining and mining service businesses in Indonesia	Indonesia
HR Association	Member	To exchange knowledge, information, and problem solutions related to human resource management at the association of companies in China	China
Australian Association of Graduate Employers (AAGE)	Member	To have meetings, workshops and submission at the Australian Association of Graduate Employers (AAGE)	Australia
Australian Institute of Management (AIM)	Member	To have meetings, workshops and submission at AIM which invests in the creation of education products, alternative education distribution channels and learning support materials and promote the advancement of education and learning in the field of management and leadership for commerce, industry and government.	Australia
NSW Minerals Council - Women in Mining	Member	To have meetings, workshops and submission at the association which is aimed to tackle the shortage of women employed in non-traditional roles such as engineers, geologists, surveyors and trades.	Australia



## OPERATIONAL EXCELLENCE

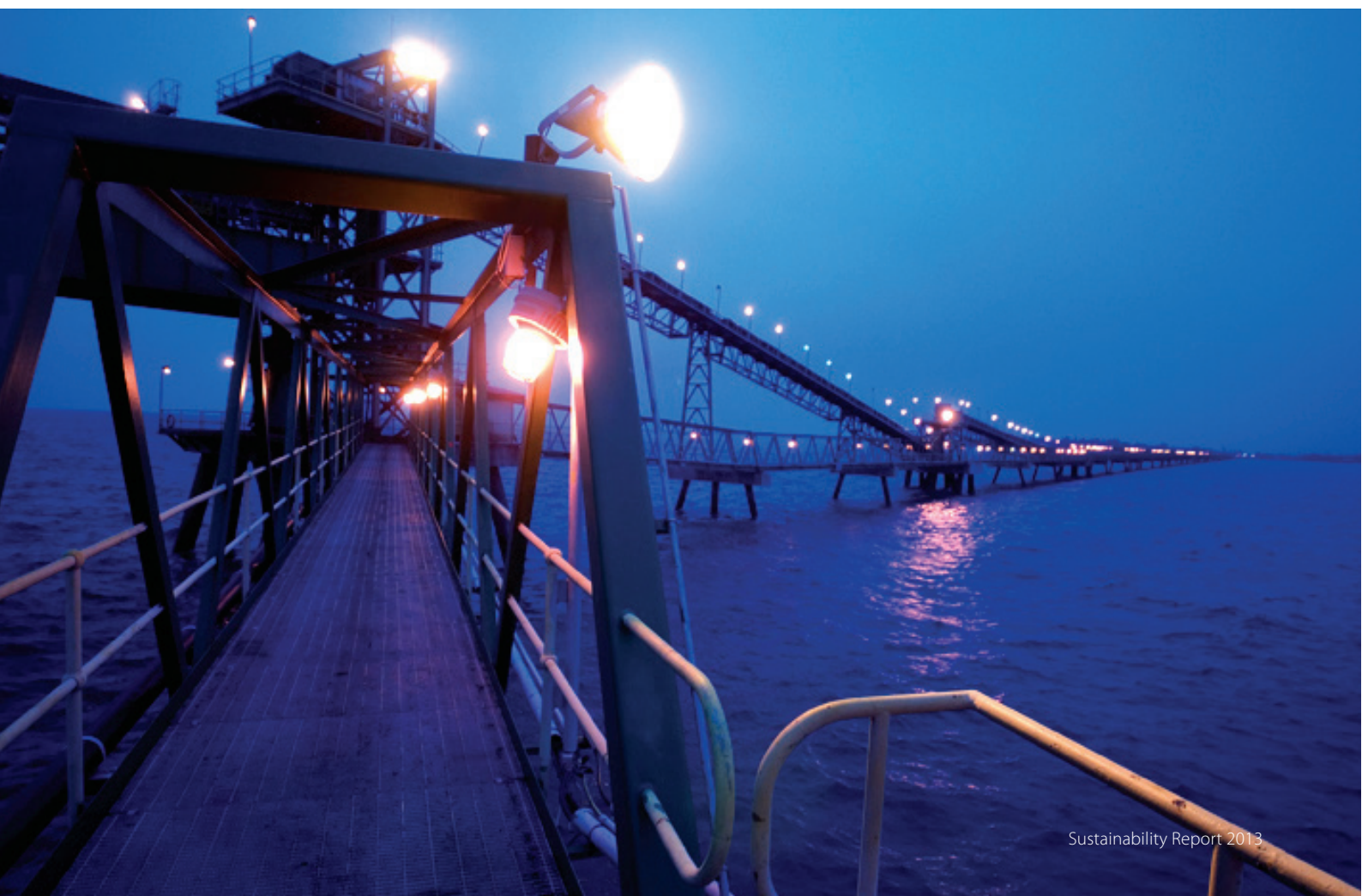
Competitiveness is a crucial factor for our growth and sustainability in the long run. Apart from People development, Operational excellence and Technology development are key elements that we strive to achieve.

### Operational Excellence

is the effective operational management by employing the Total Productive System (TPM). TPM is the system that emphasizes continuous improvement to reduce production cost, production inefficiency as well as the loss from machinery. In addition, we implement the mathematical model to identify factors for optimization of the coal supply chain; for example, the improvement and the development of transportation in Shipment Demand Pull project.

### Technology Development

emphasizes on combining innovation and state-of-the-art technology in coal production process such as geological database, exploration, strategic deposit optimization as well as implementation of production development process. At present, our projects include using LNG with coal transportation process, road design to minimize the distance of coal hauling and optimizing the use of explosive material etc.



### Shipment Demand Pull Project at ITM

During the past year, ITM, our subsidiary in Indonesia, started implementing the Shipment Demand Pull Project (SDP) across its coal supply chain. The project aims to improve the coal supply chain in a comprehensive and systematic manner in order to better respond to customer's needs. This will be done through careful planning, effective communication and innovation in the accurate calculation of the entire process starting from coal production right through to coal shipment.

The SDP was launched in May 2012. The project manages to cover ITM's entire coal supply chain, from Run of Mine (ROM) stockpiles to shipment with cooperation between all mine sites in Indonesia, Bontang coal terminal including support functions.

The SDP's main purpose is to plan ITM's production and sales so they are in line with one another to get the benefits, such as:

- Reducing demurrage charge
- Reducing the operation cost

- Reducing coal mismatch
- Optimizing coal reserves

The full implementation phase of the SDP Project started in April 2013.



### IPCC Project at Indominco Mine

In-Pit Crushing and Conveying (IPCC) system is a process that combines the work of various machinery including a semi-mobile in-pit crusher, a conveyor and a spreader to transport raw materials such as overburden (or coal) from open-pit mine. With IPCC, the materials can be moved from one area to other locations inside a pit or up from the pit. IPCC continues to work together with a loading truck and shovel method which is our main mining method in Indonesia. An added IPCC system helps shorten the distance to transport material compared to truck system.

Banpu has experience implementing the IPCC technique since 1992 at Mae Moh mine owned by the Electricity Generating Authority of Thailand (EGAT) in Lampang province and since 1998 at Lampang (LP2) mine. With those experiences, it enables us to thoroughly understand the potential of this technique.



In Indonesia, Banpu has started implementing the IPCC system at the East Block of Indominco Mine. The machine assembly was completed in November and started operation in December 2013. The system helps to increase the East Block's coal reserves because of the deeper mining pit level and it can remove as many as 14 million bank cubic meters (Mbcm) of overburden per year.



## Participation and Membership

Organization	Status	Role	Country
CTPM Australasia	General Member	Meetings, workshops	Australia

## Awards and Recognitions

Site	Awards/Recognitions	By
Luannan Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Zhengding Power plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Zouping Power Plant	3in1 Quality Safety Environmental Management System certifications	By The International Certification Network: IQNET and China Quality Certification Center: CQC
Kitadin-Tandung Mayang Mine	ISO 9001:2008	SGS United Kingdom
	TPM <sup>3</sup> Excellence Award - Level 4	CTPM Australasia
	Gold / Excellent Award	International Convention on Quality Control Circles
Indominco Mine	ISO 9001:2008	SGS United Kingdom
	TPM <sup>3</sup> Excellence Award-Level 3	CTPM Australasia
	Gold/Excellent Award	International Convention on Quality Control Circles
Jorong Mine	ISO 9001:2008	SGS United Kingdom
Trubaindo Mine	ISO 9001:2008	SAI GLOBAL Certification Services
Jakarta Office	Gold/Excellent Award	International Convention on Quality Control Circles





## LOCALIZATION <sup>(G4-19)</sup>

Regarding our vision “To be an energetic Asian energy provider of quality products & services and be recognized for our fairness, professionalism, and concerns for society and environment” and our missions “To conduct business in a socially, ethically and environmentally responsible manner while creating sustainable value for shareholders, customers, business partners, employees and local communities”, we have institutionalized Banpu Board of Directors and Banpu subsidiaries to conduct business in accordance with our strategic directions, in line with good governance principles, and conform to the law and regulatory requirements prescribed by the Stock Exchange of Thailand, the Office of Securities and Exchange Commission, Capital Market Supervisory Board, Articles of Association, and the resolutions of the shareholders’ meetings to safeguard interests of all stakeholders.

# CORPORATE GOVERNANCE

## Structure of the Board of Directors

Banpu board consists of twelve members. Six of them are independent directors, three are non-executive directors and the remaining three are executive directors. The Chairman of the Board is one of the six independent directors. To carry out specific functions on their behalf, the board has appointed 3 sub-committees namely the Audit Committee, the Corporate Governance and Nomination Committee and the Compensation Committee. All members of the sub-committees are non-executive directors. The board resolved in the board meeting that each director will be a member of not more than 2 sub-committees. The Chairman of the Board has no seat in any sub-committee.

## Roles and Responsibilities

The board has formulated "The Practices of the Board of Directors of Banpu Public Company Limited," in 2009 as a guideline for the board performance. The guidelines cover definitions, composition and criteria of the board, directors' qualifications, terms of office and vacancies, duties and responsibilities of the board as well as meetings and voting procedures. It was reviewed and amended in 2011 and 2012 respectively to reflect changing in its responsibilities and business conditions.

To be accountable for stakeholders' benefit, the board has monitored and supervised Banpu management so that the firm has achieved its goals as well as shareholders' interests successfully. The board is fully aware that Banpu's business has been complied with the CG policy and the Code of Conduct while interests of all stakeholders are considered. The board delegates its power to the Chief Executive Officer to manage day to day operation where the authority, powers and duties of Chief Executive Officer and the Board of Directors are clearly separated.

The board defines the Audit Committee Charter, Corporate Governance and Nominating Committee Charter, and Compensation Committee Charter to serve as performance guidelines of such sub-committees.

## Performance Review Guidelines for the Board of Directors

The Board of Directors sets an annual target and evaluates the performance of the Chief Executive Officer accordingly. The Chief Executive Officer respectively, evaluates the performances of the senior management under his direct command. The criteria for appraisal are linked to the strategic plan and annual plans. Assessment result is a crucial factor to determine their remuneration and incentives. (Further details are provided in the 56-1 form regarding authority of the Chief Executive Officer).

In order to monitor outcome of management performance regarding the company goals, the board has set a monthly performance report as an agenda in the regular monthly board meeting to investigate the monthly results against the targets. The report also includes an analysis of opportunities and risks in economic, environmental and social circumstances. An outlook for the next period and year on year outlook is also discussed. In case the goal has been deviated from plan, the management is required to explain the causes. Then, the board may make comments or recommendations for improvement and the management will report the result in the next period.



## Compensation Management

The board appoints the Compensation Committee to be responsible for set up compensation structure and system for the board and the management. Compensation committee will present its consideration to the board for consideration. However, the remuneration package for the board members must be approved by shareholders in the Annual General Meeting.

In determining the compensation package, the Compensation Committee has integrated many factors into its criteria:

- Regarding the 2009 Compensation Committee Charter, the committee will take the opinions of both internal and external stakeholders including management, labor unions, and other stakeholders into its consideration. The committee will also seek a market practice and information e.g. the compensation survey conducted by the Thai Institute of Directors (IOD), local market and international market surveys conducted by human resources consultants, etc.
- Engaging independent consultant who is specialist in the rewarding system to provide advisory services to the committee.

## Board of Directors Performance Assessment

The Board of Directors appointed the Corporate Governance and Nomination Committee, to be responsible for performance assessment of the board as a group as well as the performance of all sub-committees on an annual basis. The results of which are, then, reported in the board meeting for further improvements.

## CEO Performance Assessment

The board has appointed CEO's performance target in the form of Key Performance Indicators (KPIs) which cover expected performances in economic, social and environmental aspects at the beginning of the year (in January or February). The CEO's performance is measured against those KPIs by every director using the performance appraisal form designed by Strategy & Business Development Department. The collective result of the CEO's performance is proposed to the Compensation Committee and the Board of Directors respectively.

## Internal Control and Conflict of Interest

It is quoted in chapters 'Conflict of Interest and Inside Information' of Banpu 'Code of Conduct' handbook. Both are important policies that prevent directors, executives, and employees from taking advantage of inside information. The management has established the internal control management and audit policies as follows:

- Establish Internal Audit function in the organization.
- Board members and top management are required to report changing of their share holdings in the monthly board meeting.
- Board members and top management are required to submit name lists of their related parties, by the Office of Securities and Exchange Commission's rule, to the board and the Audit Committee. Furthermore, related party transactions and changes occurred must be reported to the board on the quarterly basis and published in the annual report.
- Once a director or executive has disclosed a conflict or potential conflict of interest, that director or executive must not attend that relevant meeting or refrain from voting.
- The board has delegated its authority to the Audit Committee to ensure an effective internal control mechanism that covers all Banpu overseas subsidiaries by COSO standard. There is a 33-point checklist to evaluate the adequacy of our internal control framework comprising five criteria, namely
  - 1) Corporate and environment
  - 2) Risk management
  - 3) Control of the management over operations
  - 4) Information and communication technology system
  - 5) Monitoring system.
 The Audit Committee must submit such evaluation to the board for consideration on an annual basis.



## Anti-Corruption

In declaration of our intention on anti-corruption, we have set forth in Section 3.4 of the Code of Conducts about giving and receiving bribes as follow:

- Management and employees are prohibited from demanding or receiving any benefits from vendors, suppliers, contractors, consultants, and those who do business with Banpu.
- Management and employees are prohibited from offering any benefits to government officials, customers, labor unions, or any other third parties that motivates them illegally.

For the gifts and entertainment, we set forth in Section 3.5 of the Code of Conducts as follow:

- Management and employees should avoid giving or receiving gifts from any partners or those who do business with Banpu except for gifts giving in the festive seasons, in appropriate value, and without any relation to the business. (Banpu appoints the committee who determines the types and value of gifts for such festive seasons such as New Year to apply across organization.)

Since 2009, the Thai Institute of Directors Association (IOD) has started campaigning to combat corruption led by private sector. Banpu has been in the first group and joined this campaign since November 2010 to declare our determination towards anti-corruption. The company has kept up with the practices and procedures declared by the IOD, and provided consistent support for the IOD events for meetings, trainings, and seminars on the relevant subjects.

In 2012, there was an establishment of Private Sector Collective Action Coalition Council, (CAC) with IOD acting as a secretary to determine process and procedure for private sector to adopt and ensure organization a corruption-free and the self-evaluation to use as a guideline for anti-corruption.

Banpu conducted a self-assessment on our practices towards anti-corruption and presented the result to the Audit Committee, Corporate Governance and Nominating Committee, and the Board of Directors. In practice, our Code of Conducts ensures that anti-corruption guidelines have been thoroughly addressed and defined.

## Communication Channels <sup>(G4-26, G4-27)</sup>

Banpu has set up communication channels or systems to provide accurate and transparent information on our operating results regarding economic, social and environmental topics to stakeholders as well as to receive opinions, concerns, and suggestions. Our various channels can be elaborated as follows:

- Annual General Meeting of Shareholders is organized to provide an opportunity for shareholders to lodge their opinions, ask questions and vote to elect the board of directors.
- 'Corporate Governance Policy' and 'Code of Conduct' handbooks are made available for directors, executive officers and employees. Moreover, members of the board also follow the guidelines in the 'Director's Handbook' published by the Office of the Securities and Exchange Commission in 2005.
- Corporate Governance is periodically communicated to stakeholders through annual reports and to employees via internal journal 'Banpu Insight' in column 'CG of the Month'.
- Seminars and employee orientations on CG policy are conducted for both current and new employees. CG issues can be accessed through company's portal. Furthermore, many CG internal events are held regularly, for instance, 'CG Voice' and 'CG Day'.
- Stakeholders are provided with channels to voice their complaints to the board via company website and portal. The complaints will be forwarded to the Secretary of the Corporate Governance and Nomination Committee for further action. The complaint management reports are provided to the Corporate Governance and Nomination Committee on quarterly basis and to the Board of Directors on annual basis respectively.
- Investor Relations department is established to serve as direct communication channel for both domestic and international investors.
- Operating Results Analyst meeting is organized quarterly to provide information to investors and analysts.
- Company and subsidiaries site visits, e.g. overseas mines and BLCP power plant site visit, for shareholders, customers, community members, media and academic.

## Participation and Membership

Organization	Status	Role	Country
Thai Listed Companies Association (TLCA)	Advisor of the Chairman of the Board Committee	Giving advices to the Chairman of the Association in formulating policies that benefit members of the association, for instance, competency enhancement training programs for executives of listed companies, coordinating with government sector in laws and regulations amendment as well as giving opinion and raising issues of business sector to the government for the betterment and benefits of all related parties whether in public, business or government sectors.	Thailand
Federation of Thai Capital Market Organizations (FETCO)	Advisor of FETCO	Serving as one of the capital market experts who give advices to develop the entire Thailand's capital market to contribute to the nation and all levels of investors in a sustainable manner. Also initiate the policy formulation of capital market development, voicing opinion regarding obstructions removal. This would eventually make Thai capital market an efficient and internationally	Thailand

## Awards and Recognitions

Site	Awards/Recognitions	By
Banpu	Companies with Excellent CG Scoring and Top Quartile CG Scoring by Market Capitalization awards	The Stock Exchange of Thailand, The Office of Securities and Exchange Commission and The Thai Institute of Directors
	Top 10 Corporate Governance Report Awards of 2013	The Stock Exchange of Thailand
	CSRI Recognition	Corporate Social Responsibility Institute, The Stock Exchange of Thailand
	Outstanding sustainable report award of 2013	The Stock Exchange of Thailand, CSR Club of Thai Listed Companies Association, The Office of Securities and Exchange Commission, and Thaipat Institute









## LICENSE TO OPERATE <sup>(G4-19)</sup>

An important element of our growth and sustainability is the recognition from community and society. In order to gain that recognition, we must improve our business operational practices as well as showing our responsibility and strong commitment to society and environment.

We identify 4 main issues regarding the license to operate as follows:

- Compliance with laws and regulations indicates our recognition from the government.
- Occupational health and safety concerns reflect our sincere care and full responsibility for all employees and contractors.
- Environmental responsibility represents our value and commitment to the community surrounding our coal mines. Furthermore, environmental conservation will definitely benefit our future generations.
- Community Development, inevitably, coal mining business might have some negative impacts on people's lives as well as communities surrounding our coal mines. Therefore, we initiate various projects for community development, including their way of living.

# COMPLIANCE WITH LAWS AND REGULATIONS

## Importance

Besides the excellent strategic planning and employees' commitment which are a crucial part for every organization continued success and sustainable growth, compliance with laws and regulations is fundamental to ensure organizations' steady future as well as to be highly competitive in the global arena. At present, an over-arching consideration for most organizations is, and will always be the compliance with laws and regulations. Apart from its direct benefit which is the continuation of business support from the government sector, the organization also gains indirect benefits, including social recognition, reputation and most importantly the organization's positive image. This, in turn, encourages every organization to be able to compete in the long run.

At Banpu, we also emphasize on our business operation to comply with relevant laws and regulations. With coal mines and power plants as our major assets in various countries, there are complexity and degree of differences in terms of laws and regulatory requirements among those countries. It is our mission to fully understand and comply with laws and regulations in each country. We are determined not to violate any laws or regulations which may bring negative image to our organization. We have developed policies and operational guidelines to administer business procedures which are compatible with the laws and regulations requirements at every level in every country. We strongly believe that strict compliance with laws and regulations represents our responsibility and commitment for the society which, in turn, helps us build a solid growth and a sustainable development.

## Management

Throughout our business management, it is very essential to comply with laws and regulations. In practice, we actively identify measures to manage our business operation in alignment with each country's regulatory requirements. These measures can be classified into 2 steps as follows:

- **To establish the foundation of business operations**

We recognize the significance of solid foundation for every business unit that aligns with laws and regulations. Therefore, in the first step, we carefully study applicable laws concerning a particular operational procedure. Next step, we apply the content of that law in laying out our management standards including work procedures of every single business unit in our organization.

Nevertheless, work procedures for the same type of business, but in different countries may not be necessary to have the same setting, due to the difference in laws and regulations of those particular countries, especially the pollutant emissions.

- **To conduct an operational audit**

In order to ensure that our business operations comply with laws and regulations, management foundation as well as routine operational audits are put in place. We have established operational audit procedures for every single business unit which consists of audits by both internal unit and external auditor. Those ensure that we achieve our goals and shareholders' interests are maximized.

## Operational audit by the internal unit

Operational audit by our internal unit is vital to our confidence since it helps reveal whether our current performance and efficiency align with existing missions and policies. Recognizing the importance of this matter, we have established 3 processes to evaluate our operations as follows:

- **Quality Assurance Review (QAR)**

It is our policy that every unit under the division of Corporate Services comprising Health, Safety, Environment and Community Development Department, Human Resources Department, Information Technology Department, Legal and Compliance Department, Procurement and General Administration Department and Corporate System Department must conduct self-assessment in terms of its performance efficiency and whether it is aligned with management standards and work procedures. The results from this self-assessment will be used for further improvement and development of each unit.

QAR will be executed at corporate, country and site level. Each country is responsible for conducting QAR at site level on an annual basis. Then, the site level QAR results will be verified and validated by QAR representative from corporate to ensure the compliance. Each year, QAR at country level will be arranged after QAR at all sites are completed.

At present, all Banpu's subsidiaries in Thailand and Indonesia have adopted QAR policy from the corporate. Business units in China will start employing QAR concept into their audit procedure within 2014, whereas Australia will address and implement QAR concept in the near future.

- **Internal Audit**

The Internal Audit department was established to inspect overall operation within our organization. Its primary roles and obligations are to examine company's financial status, sufficiency of internal control, risk management, and compliance with laws and relevant regulations according

to annual risk-based audit plan. The results of internal audit will be reported to the Audit Committee and the Board of Directors, respectively.

- **Corporate Compliance**

To ensure that our business operations comply with laws and regulations, we have established Corporate Compliance function under the Legal and Compliance Department at corporate level. At present, the Corporate Compliance function performs its audit in three major countries being Thailand, Indonesia and China.

For Thailand, the Corporate Compliance function has conducted its audit of every business unit twice a year.

Our subsidiaries in Indonesia had established Country Compliance function to regularly gather, review and communicate the business-relevant laws and regulations to every business unit. In addition, this function is also responsible for ensuring that all activities of every business unit in the country have complied with laws and regulations. To certify that Country Compliance function operates according to our procedures and practices, the Corporate Compliance function will supervise the country's compliance on an annual basis.

The Legal Department of our subsidiaries in China had appointed a Legal Compliance Coordinator. His/her major responsibility is to contact, coordinate and facilitate the follow-up of compliance procedures between Corporate Compliance function and every business unit in China. Each year, the Corporate are complied function and the Compliance Coordinator will supervise and ensure that the business units' compliance with laws and regulations. In 2013, both units successfully completed the operation compliance follow-up at our subsidiaries in China, being Zouping, Zhengding and Luannan power plants.



**Figure illustrating operational audit by our internal unit**

### Corporate Compliance

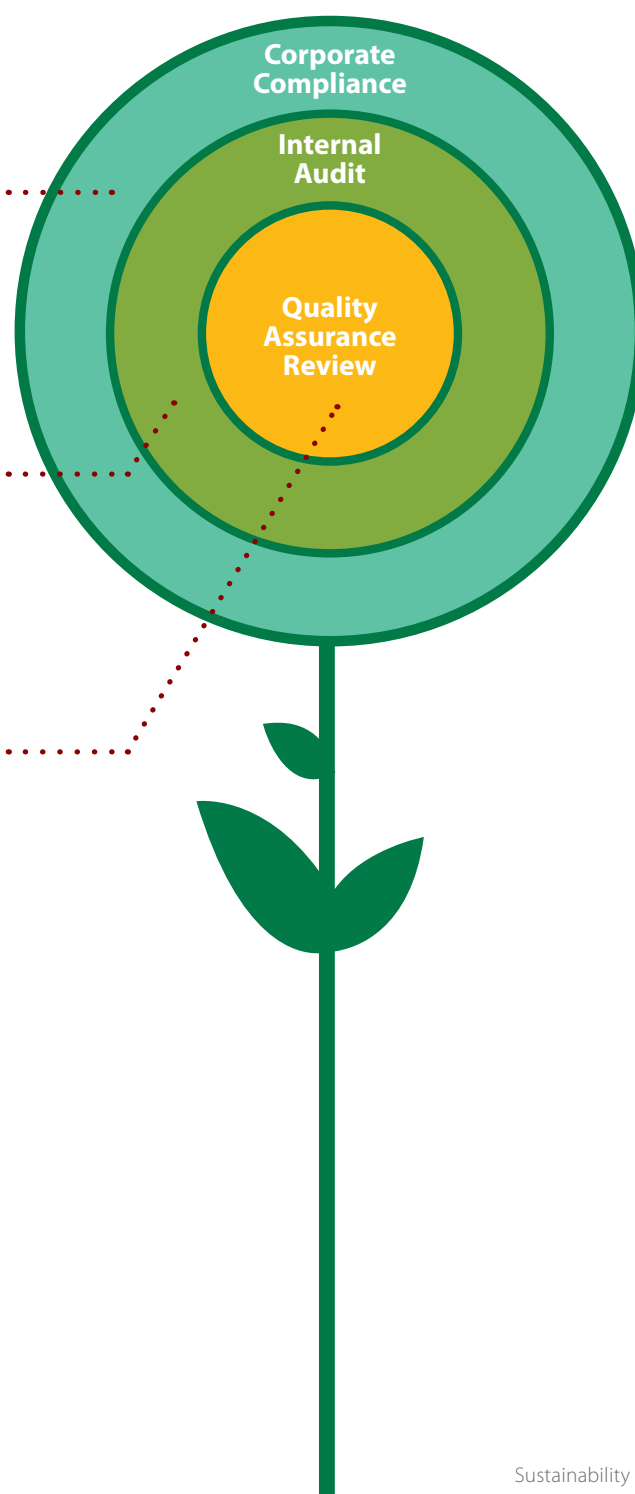
Ensure the governance of risk, operational transparency by observing both company specific and statutory regulations

### Internal Audit

Ensure the adequacy of effective internal control which cover the establishment, maintain and implementation

### Quality Assurance Review

A Process oriented to guarantee that the quality of the outputs meet some predetermined quality standard



### Operational audit by a third party

Apart from the operational audit internally, third parties such as government agencies and certified body also perform operational audit for our businesses. The benefit of using the third party is a higher degree of credibility of our operation compliance with laws and regulations. Details of the third party audit are as follows:

- **Operational audit by government agencies**

It is essential that our business operations in every country must be regularly inspected by government agencies. The main purpose of the audit is to ensure that our operations comply with applicable laws, regulations and other requirements of that particular country. Any violations will be subjected to punishment; for example, penalty fees and license cancellation.

As for our coal mine business in Indonesia, the law designates government agencies to inspect the operations in every location on a monthly basis. Key audit areas which government agencies focus on include occupational health, safety, and environment. The audit results in 2013 showed that all of our six mines have operated in compliance with Indonesia's laws and regulations.

Other business in other countries such as coal mines in Thailand and power plants in China will be randomly inspected in terms of occupational health, safety, and environment by government agencies. Therefore, every business unit must ensure its compliance with laws and regulations at all times so as to be well prepared for the audit.

Besides random audit of our power plants in China, Chinese government has issued the legal framework which enforces every coal-fired power plants to install Continuous Emission Monitoring equipment (CEM) to monitor air quality and to report the online monitoring results to government agencies. At present, our coal-fired power plants have successfully installed the equipment and already reported the results to relevant government agencies. In 2013, every power plant in China has passed the air quality standards under the regulation.

- **Operational audit by the international certified body**

Most of our business units have already been certified with international standards, consisting of Quality Management System (ISO 9001), Environmental Management System (ISO 14001) and Occupational Health and Safety Management System (OHSAS 18001) from a certified body situated in that country. The operations of certified body will be re-inspected for compliance with laws and regulations to emphasize their credibility. The following table shows our business units that are already certified.

Country	Site	International Standard		
		ISO 9001	ISO 14001	OHSAS 18001
Indonesia	Indominco Mine <sup>(a)</sup>	✓		
	Kitadin-Tandung Mayang Mine	✓	✓	✓
	Jorong Mine	✓		
	Trubaindo Mine	✓		
China	Zouping Power Plant	✓	✓	✓
	Zhengding Power Plant	✓	✓	✓
	Luannan Power Plant	✓	✓	✓

<sup>(a)</sup> Indominco is under ISO 14001 and OHSAS 18001 certificate extension process.

### The outcome of complying with laws and regulations

The outcome from the government agencies' audit concerning our business operations in 2013 indicated that every business unit has fully complied with laws and regulations of each country. Therefore, in 2013, we had not been penalized from any violations of laws and regulations.





# OCCUPATIONAL HEALTH & SAFETY

## Our Approach

Based on our Sustainable Development Policy, our safety strategy is founded on a mindset of zero harm called “3-Zero Principle”;

- **Zero Incident** – by preventing and correcting unsafe behavior or work condition,
- **Zero Repeat** – by taking all necessary steps to prevent the recurrence of the incidents, and
- **Zero Compromise** – by adopting non-negotiable safety standards and rules throughout all operations

We commit to create a safe & healthy working environment for our people. In doing so, we set the occupational health & safety policy and develop the roadmaps at all our operations. These roadmaps help every operations understand where we are and how we can achieve our commitments.

Our current key occupational health & safety issues include

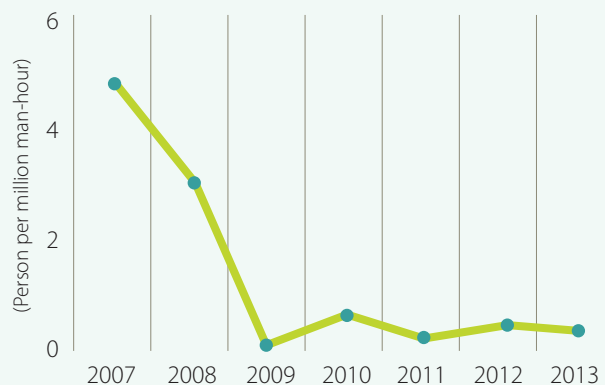
- Safety Performances
- Safety Culture
- Contractor Management
- Business Continuity Management
- Occupational Health

## Safety Performances

We continuously measure our performance towards our goal of zero incidents. As a result of ongoing safety roadmaps, the Injury Frequency Rate of employees and contractors was dramatically dropped during 2007-2009 and gradually decreased until this year. At the end of 2013 our Injury Frequency Rate was 0.34 which is 19% improvement when compared with the last year.

Nevertheless, lower injury rate does not mean that the serious incident will not occur. In 2013, three people lost their lives due to the accidents. After each incident, especially three fatality cases, we conducted in-depth investigation of the root causes then made necessary corrective and preventive actions to ensure that any similar incidents will not recur again.

## Injury Frequency Rate (IFR)



## Safety Culture

In regards to achieve our goal, the Safety Culture program was developed and implemented across the group. Since our operations are located in many countries, the Safety Culture program was specifically developed in local context with the same ultimate goal – 3 Zero Principle.

As preventive measures, we embarked upon a corporate strategic meeting on Health, Safety, Environment and Community Development issues called HSEC Summit since 2 years ago. This summit is a meeting of all business units, both operational and supporting functions about how to continual improve our HSEC performance for not just to secure our License to Operate, but to ensure the efficiency and effectiveness of our business. The most recent HSEC Summit was conducted in October 2013 under the theme “Safe and Saving for Sustainability”.



### The Steps Change and The Next Step, a safety initiative at Centennial Coal

Centennial strives for zero harm; to provide a workplace that is free from injury or illness. At Centennial, safety is a core value. The Company places the highest importance on the health, safety and wellbeing of its workforce. After a review of international leading practice, Centennial embarked upon a behavior-based safety improvement program called "Step Change", which was initiated in 2008.

The initiative included a targeted leadership development program and an additional program designed for the general workforce. All of our people within Centennial now talk the same safety language, based around the vision statement of "Think Safe, Work Safe, Home Safe".



The next phase of the program called "Next Step" commenced at the beginning of 2012, building on the foundations laid by Step Change. This behavioral safety initiative is about embedding leadership qualities and tools into our business to prevent injuries from occurring. The key message is that crew by crew, shift by shift, day by day, we can work towards a zero harm workplace. Next Step focused on the continued development of our safety leaders, line managers and supervisors providing the leadership tools to assist employee engagement, positive safety interactions and effective communication strategies. In 2013, the Next Step program was delivered to all supervisors.

The benefits from these initiatives lie not just in improving our safety performance and having fewer injuries through adoption of safer practices, but also lasting benefits of sustaining a healthy and productive workforce who look out for one another and have the ability to speak up about workplace health and safety matters.

### Step Dot Survey, a Risk Identification Tool at Centennial Coal

As an output from the Step Change program, "Step Dot" surveys have been developed and used to identify tasks which lead to injury. A Step Dot survey is a systematic analysis of the workforces' own responses to a questionnaire designed to establish:

- Which activities and tasks undertaken during their shift cause them pain and discomfort.
- Which jobs they don't like doing and why.

The findings from these surveys are then used to determine the key priority improvement areas for which engineering control strategies may be developed to remove or reduce the impact on employees exposed to such tasks.

Using this process, Myuna Colliery used a multi-disciplined team of mine workers and engineers to develop a simple tool to assist with cable handling. The resultant "skyhook" was showcased at the NSW Minerals Council Innovations and Excellence Awards, not only for the innovative method for reducing a manual handling risk, but also as a demonstration of workplace engagement and consultation.

By focusing on hazard identification, engagement of employees and continuous improvement to safety related matters, the ongoing safety initiatives have fundamentally led to the continual reduction in lost time injuries at Centennial since its inception in 2008; from an LTIFR in 2008 of 19 to 6 in 2013 – a strong indication that we are progressing towards our goal of zero harm.



### SEMESTA Promotion at Kitadin – Tandung Mayang

At Kitadin–Tandung Mayang, one of our subsidiaries in Indonesia, the integrated HSE management system called "SEMESTA" was introduced since 2012.

Safety and Environmental Management System Tandung Mayang or SEMESTA is the management system developed based on the OHSAS 18001:2007, ISO 14001:2004 and Indonesian regulation with the implementation approaches that were easy to access and understood by the shop floor workforces.

SEMESTA started with the Brand Contest to get involvement from all employees. Then, the campaigns promoted through various

communication channels, such as Banner, Email, Portal Web. The program also covers training to develop skill and competence of the employees. Until the end of this journey by the mid of 2015, we aim towards a safely workplace for our more than 2,000 miners working under high-risk conditions.



## Contractor Management

We recognize and value the contribution of our contractors on the safety performance. Contractor Management System (CMS) has been established with the aim to ensure that our contractors perform in accordance with what we commit. To achieve our goal, the guidelines for managing Health Safety and Environmental risks through the establishment of relevant HSE requirements within the framework of CMS have been developed. It is expected that by implementing CMS, any risks associated with occupational health, safety and environmental aspects of all contracted business activities will be mitigated.

The framework of CMS covers two phases as:

- **Contractor Engagement**

When identifying the scope of work, the occupational health, safety and environmental hazards associated with the contractual work must be identified, and their respective impacts must be determined. Then, the proper HSE risk mitigations must be reviewed with clear goals, targets, and performance measures. Such risk mitigations are incorporated as part of contractor selection process and also as part of the contract.

- **Contractor Management**

Before the contractor starts working, contractor's HSE management plan must be established and submitted. This includes targets, control measures, and also the emergency response plans. Then, during contractor operation, the contractor's performance is periodically evaluated.

This means that any HSE related risks are identified and proper mitigation plans are reviewed since the beginning of the contracts. Moreover, to ensure the effectiveness of the CMS implementation, the assurance process is developed and started implementing every year since 2010.

By focusing on the incident analysis that most of the fatality incident comes from activities operated by our sub-contractors, we extended the scope of our contractor management system to also cover sub-contractors.

## Business Continuity Management

To minimize any consequent disruptions and financial loss caused by any incidents interrupting our business processes, Business Continuity Management (BCM) was established at both corporate and business unit level since 2008.

By implementing BCM, all our critical business functions can

ensure their continuity when the functions are hit by any incidents whether such incidents are natural disasters (e.g. flood in Thailand, 2011) or man-made (e.g. protest in Bangkok, 2010). In 2012, we have tested the business continuity plan in an entire command line from our subsidiary in Indonesia to headquarter in Bangkok.

In 2013, in addition to our current BCM program, based on Australia, Singapore and the United Kingdom best practices, we started our new journey on BCM process by implementing an international standard, ISO22301 – Business Continuity Management System (BCMS) framework. The roadmap started at headquarters. We are looking forward to getting an ISO22301 certification for BCMS implementation at headquarter in the near future then we plan to deploy roadmap on ISO22301 to our subsidiaries.

## Occupational Health

Emphasizing by our managements in the HSEC Summit, occupational health is our key issue since it tied closely with our people. Our approach in managing occupational health underpinned by a belief that the occupational health risks can be prevented not only during work, but also at home. The occupational health management in this period covers any risks caused from fatigue and non-appropriated working condition as well as occupational exposure to noise, dust and exhaust from fuel combustion.

Since one of our key activities is coal handling along the hauling road, fatigue is definitely one of the key factors that led to the accident happened. To eliminate such risk, we established fatigue management program in some critical areas.

At all our operations, they are required to monitor the air quality against both the emission and ambient air quality standard. In the case that our staffs have to work in the high risk areas, they are protected by appropriated personal protection equipments (PPE). Even though there is no non-compliance case related to occupational exposure, we strictly manage our operation with preventive measures to ensure that any risks are controlled at their sources





### Fatigue Management Program at Kitadin – Tandung Mayang

In 2012, Fatigue is one of the key factors that led to some major accidents at Kitadin–Tandung Mayang. In 2013, the priority supported by site's managements is to reduce any potential accident at hauling road caused from fatigue.

The programs in 2013 started before our employees begin to work by conducting the 'Fitness Card' to identify any related fatigue condition. During work, a part of banners and stickers, fatigue messages via radio was communicated every hour. In

SKTO FITNESS CARD	
Domain ini diisi: Nama: _____ No: _____ Jabatan: _____ Pada hari _____ tanggal _____ Menentukan bahwa saya: <input type="checkbox"/> Waktu tidur kurang dari 4 jam <input type="checkbox"/> Mengonsumsi obat yang bisa menimbulkan kantuk Dengan pemutihan ini dibuat dengan kesadaran penuh Tanda tangan: _____ Karawan: _____ Persewaan: _____	
TANDA-TANDA FATIGUE	
<input checked="" type="checkbox"/> Mata sulit untuk tetap terbuka <input checked="" type="checkbox"/> Sering menguap <input checked="" type="checkbox"/> Hilang konsentrasi <input checked="" type="checkbox"/> Hilang kesadaran sesaat <input checked="" type="checkbox"/> Pandangan buram <input checked="" type="checkbox"/> Perasaan tidak nyaman <input checked="" type="checkbox"/> Loyo <input checked="" type="checkbox"/> Mudah marah <input checked="" type="checkbox"/> Koordinasi mata & tangan kurang	



addition, our safety patrols randomly conducted the fatigue check at critical time daily to ensure that any conditions leading to fatigue were eliminated.

### Healthy Workplace Program at Power Plants in China

Three combined heat and power plants in China launched the 'Healthy Workplace' activity, covering four elements – safe work, healthy living, good physical and spiritual health. The basic concept is that, in order to deliver high quality work, all staffs should be sound in both mind and body.



The activity emphasizes employees' participation and interaction, encouraging them to set a target and a follow-up action plan to suit their own conditions. Employees actively responded to the company's call and made their own 'Health Commitment' and acted upon it.

There are numerous good stories, such as an 'Assessment of Hidden Risk' under the theme of 'My Workplace, My Duty' and the 'Safety Model' promotion which triggered employees to hand in over 1,000 proposals within few months to help us get rid of many hidden risks. Owing to a series of promotion campaigns, our staffs now deeply understand the 'Healthy Workplace' concept and also realize that work is inextricably bound to health.

Meanwhile, the activities enhanced employees' enthusiasm and confidence to convert ideas to action, putting forward new proposals towards work-life balance, and fulfilling their commitments through consistent effort.







## Participation and Membership

Organization	Status	Role	Country
University of Indonesia (Jakarta)	General Member	Guest speaking to students at the Faculty of Public Health, University of Indonesia	Indonesia
National Rescue Team Association - Bananas Indonesia	General Member	Joining the National Rescue Team in natural disaster rescue operations such as flood, earthquake, tsunami, etc.	Indonesia
Indonesia OHSAS Association Forum	General Member	Attending meetings to make suggestions and updates on OHS information and international standards	Indonesia
Indonesia Mining Association (IMA) and Indonesia Coal Mining Association (ICMA)	Board of Environment, Health and Safety Committee	Attending meetings to make suggestions and regulations on environment, health and safety in mining and coal business operations	Indonesia
NSW Minerals Council	General Member	Meetings, workshops, submissions	Australia
NSW Minerals Council WHS Committee	General Member	Meetings, workshops, submissions	Australia
Minerals Council of Australia OHS Committee	General Member	Meetings, workshops, submissions	Australia
Coal Services - Mines Rescue Working Group	General Member	Meetings, workshops, submissions	Australia
Australian Coal Association Research Project (ACARP)	General Member	Meetings, workshops, submissions	Australia
RiskGate (affiliated with ACARP)	General Member	Meetings, workshops, submissions	Australia

## Awards and Recognitions

Site	Awards/Recognitions	By
Luannan Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Zhengding Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Zouping Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Kitadin-Tandung Mayang Mine	OHSAS 18001:2007	SAI GLOBAL Certification Services
	Zero Accident Award	East Kutai Regency
Kitadin-Embalut Mine	Silver Level - 2012 Mine Safety Award until (Valid 29 November 2013)	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
	2 <sup>nd</sup> Winner - Silver Medal, High Angle Rescue (HAR) challenge, 16 <sup>th</sup> IFRC	Indonesian Fireand Rescue Challenge Committee
Indominco Mine	Silver Level - 2012 Mine Safety Award (Valid until 29 November 2013)	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
	Zero Accident Award	East Kutai Regency
Centennial	Three nominations for Finalists in the NSW Minerals Council OHS Conference Awards of Excellence	NSW Minerals Council
Springvale Mine	Western Districts Mines Rescue Competition Winner	Coal Services Mines Rescue





# ENVIRONMENT

In pursuit of sustainable development, we are committed to our responsibility to minimize the impact of environmental footprint resulting from our activities and to return the natural biodiversity to the community at the end of the project. Every of our projects integrates environmental management system and process, covering environmental impact assessment, environmental management plan, and measurements appropriate to each project. We establish management standards, which are based on international standards, coupled with an adoption of environmental management systems where the results are audited by both internally and externally independent agencies on a regular basis to reduce the risk to the environment and to lead to continuous improvement. We aim to ensure that all projects put in place appropriate environmental management systems, conforming to the regulatory requirements and international standards throughout the project life and to be able to return natural biodiversity to the community at the end of the project.

To achieve the vision, we are committed to:

- **Strictly following regulations, laws, and relevant standards**  
We strictly comply with regulations, laws, and environmental standards and pay close attention to possible legal changes.
- **Managing environmental impact**  
To ensure that our operations create economic, social, and environmental value, we assess environmental impacts and risks before commencing any projects. Short-and long-term plans are made to effectively prevent and minimize environmental impacts.
- **Preserving natural resources**  
Natural resources are not only an important production capital, but also something of value to be left behind for the younger generations; we put our best effort on preservation, management, and efficient use of natural resources for utmost benefits, focusing on resources relevant to our business, namely energy, water, and land.

- **Continual development**

With an aim to improve our environmental efforts in a continuously systematic manner, we ensure that an environmental management system is put in place on every production unit. We encourage improvement of work processes, setting of operating standards, and use of environmental innovations and technologies.

Our core business is energy business - coal mining and power generation. Our business activities including open-pit mine, underground mine and the combustion of coal to generate electricity and steam bring environmental material issues towards Stakeholders' attention which include:

- Energy
- Climate Change
- Emissions
- Land Use and Biodiversity

## Energy Importance

Energy is a major factor driving economic growth, industrial development, social development and well-being of people in society. The primary source of energy being used in today's world is fossil fuel which is non-renewable and tends to have higher price over time. The world's attention is, therefore, given to efficiency of energy consumption and development of renewable energy in order to ensure sustainability.

In our business activities, diesel is primary energy source of coal mining as it is being used to power mining machines and coal transportation while coal is the main fuel for power and steam generation in our power business. As energy is our major cost, we prioritize our attention primarily on energy management to minimize production cost while preserving natural resources and reducing greenhouse gas emissions.





## Management

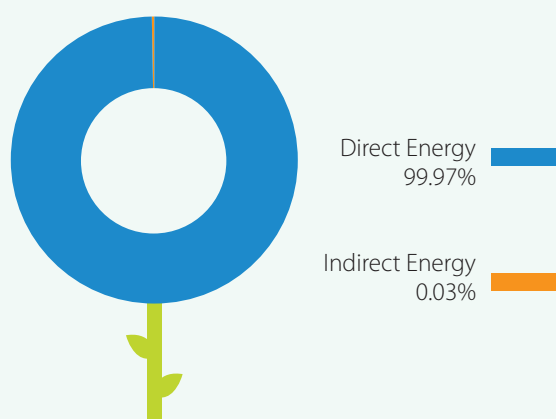
As energy consumption is our major cost, both in terms of economics and environment; energy management has been, therefore, integrated into the business goal of every production unit. Last year we focused our efforts on establishing cooperation across the organization in order to achieve reduction of energy consumption, from an organizational level to the production unit. We introduced a number of energy management initiatives including process efficiency improvement, change of fuel sources, reuse/recycle, as well as campaigning for energy conservation.

We realize that fossil fuel is one of primary causes of greenhouse gas emissions which have a direct impact on global climate change, causing questions on its justification and leading to the pursuit of alternative energy for sustainability. In addition to coal and power businesses, since 2010, we have been exploring investment opportunities in renewable energy, such as wind power, solar power, and ethanol.

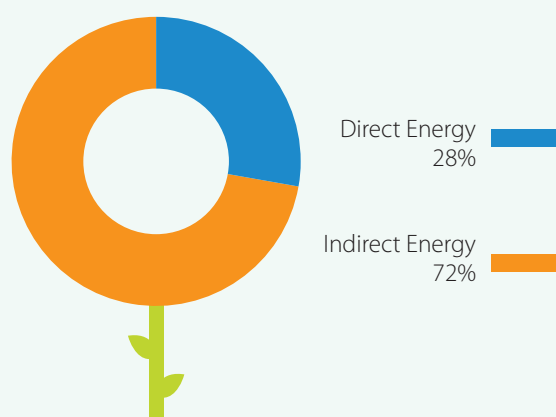
### • Coal business

Since the nature of our coal business in Indonesia and Australia is different, all of our coal mines in Indonesia are open-pit while most of our coal mines in Australia are underground. The energy usage profiles are also different. Open-pit mine in Indonesia normally use diesel in overburden removal and coal transportation while some activities such as crushing, washing and conveyor system use electricity generate internally from small diesel generators and coal-fired power plant. Nonetheless underground mine in Australia normally use imported electricity, as its main energy source.

### Energy Consumption Profile of Coal Business in Indonesia



### Energy Consumption Profile of Coal Business in Australia





In 2013, our coal business in Indonesia consumed approximately 16.7 petajoules, 99.97% of which was direct consumption. The rest 0.03% was indirect consumption of electricity supplied by a power plant located near the Jorong Mine.

Coal business in Australia, meanwhile, consumed approximately 0.79 petajoules during period January - June 2013, 28% of which was the direct consumption and the rest 72% was indirect consumption of electricity imported from local nearby power plants.

We encourage our employees to take initiatives in energy conservation. Various initiatives tailored to specific requirements of each production unit have been carried out for instance:

- Conducting a proper mining plan, designing efficient transportation and production, studying the possibility to replace trucks with conveyor system;
- Improving and maintaining the efficiency of machinery, trucks, and other vehicles by applying Total Productive Maintenance (TPM) concept;
- Selecting the proper types and capacity of mining equipments and transportation;
- Conducting a geophysical survey to calculate an appropriate amount of explosives for each area;
- Studying the possibility of utilizing liquefied natural gas (LNG) found in the nearby area in substitute of diesel

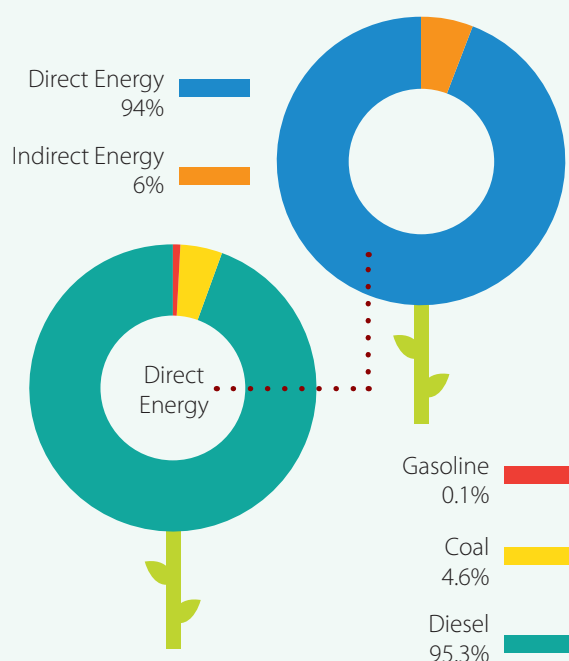
#### • Power Business

We operate three combined heat and power plants in China - Luannan Power Plant, Zhengding Power Plant and Zouping Power Plant, using coal as the direct energy for all production. Provided that all of power plants are combined heat and power plants, which produce both electricity and heat, we have many options on how to manage energy consumption for the production of electricity and heat, which are:

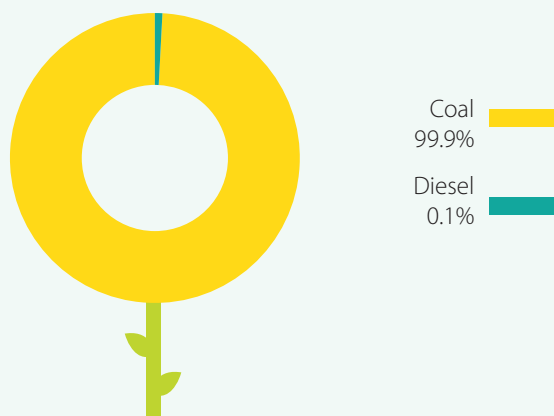
- Reducing energy loss by adjusting proportions of electricity and steam production in accordance with market demand at different periods;

- Introducing new alternatives related to production processes and products, such as selling heat in the form of hot water instead of steam for space heating;
- Increasing the energy efficiency of production processes by applying appropriate control and maintenance systems;
- Enhancing the adaptability of boilers to be able to use coal with different qualities.

#### Energy Consumption Profile of Coal Business



#### Energy Consumption Profile of Power Business



### Utilizing Liquid Natural Gas at Indominco Mine

Banpu initiated a project to study the use of Liquid Natural Gas (LNG) as alternative fuel of diesel which is one of our main operating cost by the cooperation between 3 parties; 1. Nearby State-own gas separation plant as LNG supplier, 2. Partner who specializes in developing Bi-fuel vehicles, 3. Mining contractors who are the truck owner. The objective of this project is to study the use of Diesel-LNG for the coal haul trucks.

Project started in the pilot scale by using mobile machine with the same model as in our current trucks. After the pilot scale passed the minimum criteria, the Bi-fuel units were installed in the real truck, at the real operating condition in the haul road between mine and port. Moreover, we also conduct the training sessions to our staffs and also contractor's to ensure that any safety concerns are properly managed.

The initial results show that the performance of truck using Bi-Fuel is as same as using diesel alone. However, the LNG/Diesel ratio is not yet achieved our target. So, the action to be done in 2014 is the further study to improve the LNG/Diesel ratio and then fully implement finally.



### Climate Change Importance

Climate change remains a major global issue given the increased frequency and severity of natural disasters. In several countries, measures that promote the use of clean energy have been introduced to reduce fossil fuel consumption while carbon taxes are also being collected from greenhouse gas emitters, such as electricity producers and industrial manufacturers, to be spent on greenhouse gas reduction programs. Also, there has been indirect pressure to force emitters to improve their production processes in order to reduce emissions, which only further adds to production costs. Today, all stakeholders do not only pay close attention to our efforts in greenhouse gas emission reduction, but they are also interested in our prevention and management of risk of natural disasters as a result of climate change.

We realize that coal mining and power generation is part of the greenhouse gas emissions that contribute to climate change. Our main activities that cause the release of greenhouse gas emissions include the use of coal in steam and power generation, use of diesel in generators, mining equipments, transportation, including the release of methane from coal seams and coal stockyards, etc.

Although Thailand, Indonesia, and China have not enacted carbon tax regulation, the governments have a clear policy to encourage entrepreneurs to reduce greenhouse gas emissions. Australia, meanwhile, has imposed a carbon tax scheme where the taxes are being collected from carbon emitters which then pass through the cost to the end users. This is an evidence that global climate is a concern of every stakeholders.

### Management

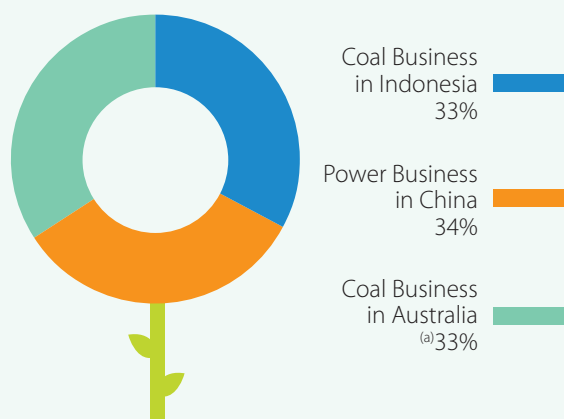
The guidelines set forth for the scope of this report is only in the assets we possess the operational control. We put our strong effort on every step we take in order to minimize greenhouse gas emissions by prioritizing on energy efficiency management and production processes improvement. We seek a new alternative of clean production technologies to reduce greenhouse gas emissions per unit of production. Recognizing both challenges and business opportunities arising from climate change and having incorporated the issue into its sustainability efforts, we are committed to:

- Creating understanding about greenhouse gas emissions from our products and impacts from business activities;
- Assessing and analyzing risks and impacts created by climate change on the business;
- Reducing direct and indirect greenhouse gas emissions appropriately;
- Supporting innovations and research and development related to low-emission technology.

In 2010, we officially introduced our carbon policy. Focusing on efficient management and use of energy, the policy aims to cut greenhouse gas emissions per production unit of the coal business in Indonesia by 5% by 2015 using the figures in 2010 as the baseline.

In 2013, our business activities located in 3 countries as Coal business in Indonesia, Coal Business in Australia and Power business in China shared approximately 33% each of the total greenhouse gas emissions.

## Greenhouse Gas Emissions Profile



<sup>(a)</sup> Greenhouse gas emission of Coal business in Australia extrapolated from the audited data of period January – June 2013.

### • Coal Business

Our activities that emit greenhouse gases include:

- Use of diesel as fuel in heavy equipments and haul trucks for overburden/coal removing and transportation, including other land management activities;
- Use of diesel and coal in electricity generation for coal processing, crushing, washing, and other mining activities;
- Use of explosives for overburden removal;
- Release of methane from coal seams and coal stockyards.

As the nature of open-pit mine, the depth of mine and distance of coal transport keep increasing over the life of mine, we remains committed to reduction of the emissions of coal business in Indonesia by 5% by 2015 using 2010 figures as the baseline. Last year, we carried out various initiatives to reduce greenhouse gas emissions as follows:

- Managing the efficiency of coal production with an aim to minimize energy consumption by conducting a mining plan and designing efficient transportation and production;
- Improving and maintaining the conditions of machinery, trucks, and other vehicles by applying Total Productive Maintenance (TPM) concept;

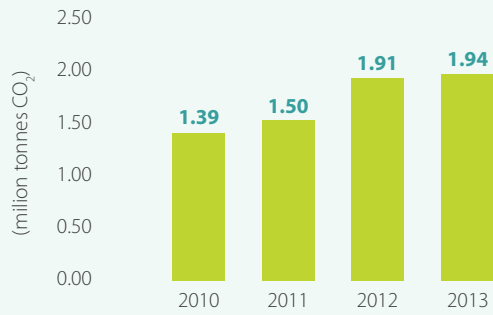
- Studying the possibility of shifting to clean energy to reduce greenhouse gas emissions, such as working with contractors to adopt the use of liquid natural gas as fuel for trucks;
- Improving production processes, including conducting a geophysical survey to calculate an appropriate amount of explosives used and using the used-oil as explosive material
- Optimizing proper barge size for coal transport
- Studying to reduce the methane released from coal seams in underground mine
- Studying to use Biodiesel B20 as substitution to reduce diesel consumption for underground transportation

In 2013, our coal business in Indonesia accounted for 1.94 million tonnes of Carbon dioxide, which was slightly increased comparing to the last year. By the way, the amount of greenhouse gas emission of coal business in Australia for the whole year 2013 is under the audit process by Australian Federal Government.

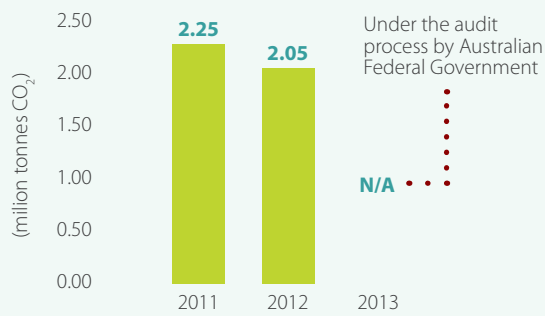




Greenhouse Gas Emission (Direct and Indirect)  
of Coal Business in Indonesia



Greenhouse Gas Emission (Direct and Indirect)  
of Coal Business in Australia



In 2013, we succeeded in reducing greenhouse gas emissions intensity in Indonesia mines. The figure was 0.0600 tonnes of Carbon dioxide per tonnes of product, or decrease of 3.1% from the 2010 baseline.

Greenhouse Gas Emission (Direct and Indirect)  
of Coal Business in Indonesia



• Power Business

The boundary of reporting greenhouse gas emission in this report covers only the assets we possess the operational control. In China, we operate three combined heat and power plants - Luannan Power Plant, Zhengding Power Plant and Zouping Power Plant - using coal as the fuel for power and steam production, which accounted for approximately 34% of our total greenhouse gas emissions. We aim to limit our greenhouse gas emissions per production unit to a minimum level. Last year, we carried out various initiatives to reduce greenhouse gas emissions in our power business, focusing on increasing energy efficiency and improving production processes as mentioned earlier (in energy section).

Our efforts brought lower greenhouse gas emissions with the emission intensity dropping continuously. In 2013, the emission intensity declined to 0.3526 kg CO<sub>2</sub>/kWh.

Greenhouse Gas Emission (Direct and Indirect)  
of Power Business in China



<sup>(b)</sup> Adjusted data from the last report

## Emissions Importance

Emissions is one of our environmental material issues since it may directly affect to the nearby communities. Moreover, emissions is also the issue that government in all countries, as well as all of our stakeholders interested.

In 2011, the Chinese government announced more stringent air quality standards for power plants (GB 13223-2011), that are on a par with those in Europe and the US. These new standards have posted challenges to all operators to adopt new and more efficient technologies to get ready once the new standards take effect in middle of 2014.

## Management

As part of our attempt to comply with the emission standards, air quality management has been integrated into the business goal of every production unit. We set our internal air quality standards to be more strengthen than the threshold limits identified by the regulations to ensure that there will be no effect both direct and indirect to the communities surrounding our operations.

Because of the difference in the nature of business between coal and power businesses, our practices in managing emissions were specifically designed for each business.

### • Coal Business

Although our particulates and other air emissions complied with all relevant standards in the past year, we are aware that particulates are intrinsic to mining activities, including drilling, blasting, excavating, dumping, and transportation.

With a focus on preventive and control measures, each project begins with a proper mine planning and an engineering design in order to reduce particulates at the source. The measures include avoiding mining in areas close to communities, planting trees to form a wind shield, having some form of enclosure for activities that produce particulates, using water spray in dusty area, and controlling the speed of hauling trucks as well as the dumping technique at stockyards.

Odor generated by spontaneous combustion of coal is another problem that affects air quality and causes a nuisance to nearby communities. Despite far lower concentration than threshold limit, the odor can still cause irritating problems. We remain focus our effort to take preventive measures on every production unit to reduce the odor at its source, such as compacting coal stockpiles to lessen exposure to air and water and routinely monitoring them to prevent and control spontaneous combustion.

Due to the remoteness and vastness of our operational sites, diesel generators and small coal-fired power plants are two sources of electricity for coal production and office. We manage our air pollutants, including Sulfur oxide ( $\text{SO}_x$ ), Nitrogen oxide ( $\text{NO}_x$ ), and Carbon monoxide (CO), by monitoring air quality at the stacks and regularly maintaining the equipment to ensure complete combustion. This is to minimize environmental impacts and comply with regulations, not causing health problems to our employees, contractors, and communities in the area.



### • Power Business

In 2011, Chinese government announced new emission standards of coal power plants as follows:

Parameter	Unit	Current Standards <sup>(d)</sup> (GB13223-2003)	New Standards (GB13223-2011)	
			Non-Key Area <sup>(e)</sup>	Key Area
Particulates	mg/Nm <sup>3</sup>	50	30	20 <sup>(f)</sup>
SO <sub>x</sub>	mg/Nm <sup>3</sup>	400	200	50 <sup>(g)</sup>
NO <sub>x</sub>	mg/Nm <sup>3</sup>	450	100	100 <sup>(g)</sup>

<sup>(d)</sup> Effective Date: 1 Jan 2010

<sup>(e)</sup> Effective Date: 1 Jan 2012 for new power plant and 1 Jul 2014 for existing power plant

<sup>(f)</sup> Effective Date: 1 Apr 2013 for new power plant and 1 Jul 2014 for existing power plant

<sup>(g)</sup> Effective Date: 1 Apr 2013 for new power plant while not yet announce the effective date for existing power plant

In managing emissions, our emphasis is placed on control of air pollutants released from power plants' stacks. These gases include Sulfur oxide (SO<sub>x</sub>), Nitrogen oxide (NO<sub>x</sub>), and Carbon monoxide (CO). Various controlling techniques are applied taking into account coal types and characteristics as well as types of boiler furnaces. In general, electrostatic precipitators and bag filters are used to capture particulates released from boilers. As for other air pollutants, control starts from emission sources (e.g. co-feeding of coal and quicklime for SO<sub>2</sub> removal in Circulating Fluidized Bed (CFB) boilers, wet scrubbing of SO<sub>2</sub> by using the Flue Gas Desulfurization (FGD) system. As for monitoring by government agencies, we have installed a real-time monitoring system to monitor the concentration of SO<sub>2</sub> released from power plants' stacks. In 2013, the average concentration of emitted sulfur dioxide was kept well below the level set by the National Standard of China, which is 400 mg per cubic meter.

We remain strong on our commitment to comply with the new emission standards, which will soon take effect. We are in the process of selecting appropriate technology for effective pollution control. The Luannan Power Plant and the Zouping Power Plant are located in key areas, while the Zhengding Power Plant is located in a non-key area. Our assessment found that some require additional investment in order to comply with the new standards. We have set aside budgets for the investment to improve emission control systems at all power plants. In addition to improving the air quality control system, we also planned to use low-sulfur coal together with improvement of our production process.

As part of our attempt to comply with the new emission standards, in 2013 we performed:

- An installation of Low NO<sub>x</sub> Burner at furnace No. 2 of Luannan Power Plant to reduce NO<sub>x</sub> and an installation of semi-dry Flue Gas Desulfurization;
- An installation of semi-dry Flue Gas Desulfurization at Zouping Power Plant;
- An installation of a bag filter at Zhengding Power Plant.

We also have undergone a number of studies about the innovation on air quality improvement and also the feasibility study for the aforementioned power plants.

### Land Use and Biodiversity Importance

Biodiversity is an environmental concern that over the world is paying close attention to, since it is an indicator of diversity of our ecosystem in which humans, animals, and plants co-exist and depend on each other. At present, deforestation for agricultural purposes and industrialization and deterioration of the environment have put biodiversity at risk. In several cases, the degree of damage is too high that biodiversity cannot be revived. Therefore, it has become an important issue that calls for actions in world stage. A call was for mainstreaming biodiversity into sustainable development was not only biodiversity issue itself, but including equitable sharing of benefits, and utilization of biodiversity as well.



Such call has brought in solid actions in many localities especially the rich biodiversity areas. In Indonesia, the government has enacted land protection laws, evidencing a protection of biodiversity. Meanwhile, economic mechanisms, clean trade agreement in natural resources, and forest protection programs are tools that developed countries employs to ensure preservation of biodiversity.

Our coal business in Indonesia is located on the Kalimantan Island, which boasts rich biodiversity. In the mining area, threatened animal and plant species listed in the IUCN Red List, including *Eusideroxylon zwageri* (Borneo Ironwood), *Shorea lamellata* (White Meranti), and *Pongo pygmaeus* (Bornean Orangutan), have been found. These species are encountering natural habitat destruction and have decreased in number as a result of land clearing, illegal deforestation, the El Nino phenomenon over the past few decades, as well as severe draughts and bush fires, such as those happening in 1983 and 1999.

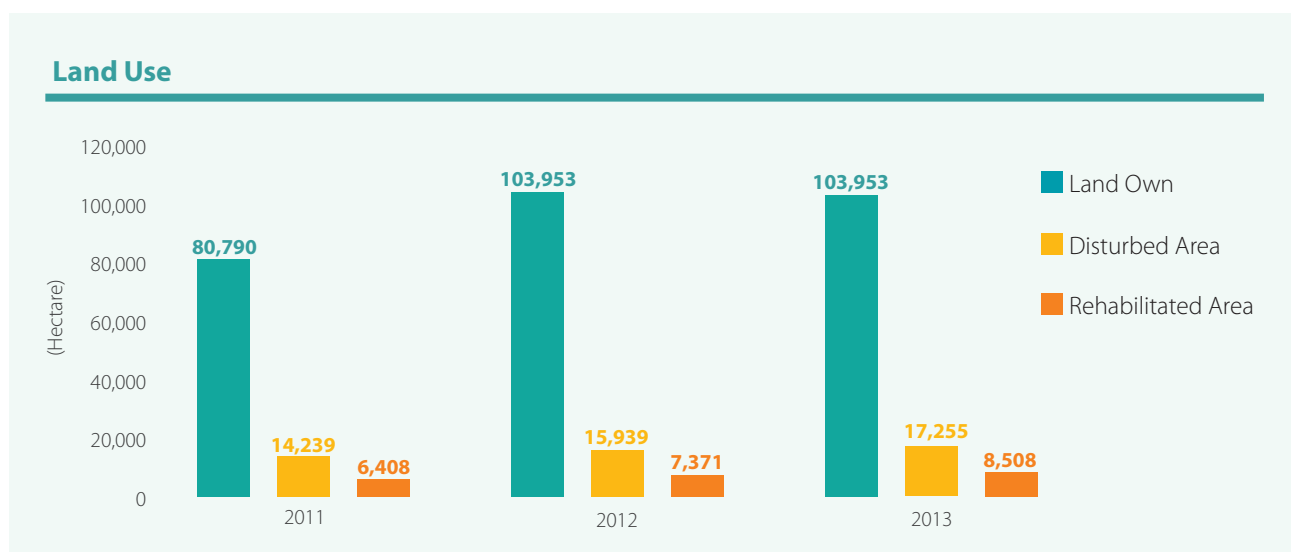
Efficient land use is a heart of coal mining to avoid major impact to the ecosystem. For open-pit mining, removal of topsoil in order to excavate the coal is inevitable. The efforts to lower the impact from open-pit mining on biodiversity must be carried out concurrently with land management. Planning must be made to avoid disturbing areas with high biodiversity and limit mining areas. Then, rehabilitation will be made as soon as possible after a mine is closed down to mitigate the impact. All these are parts of our land use management, which aims to preserve the original condition of the ecosystem and benefits of surrounding

communities as much as possible. For the power business in China, our power plants are located in industrial zone which does not cause any impact on biodiversity.

On the other hand, land utilized by our coal business in Australia is generally fixed, with minor additional disturbed since it is underground mining. the effect of land use is subsidence which can impact on environment as well as properties and infrastructures of the nearby communities.

### Management

Having efficient land use with as little disturbance as possible to the ecosystem is a great challenge for coal mining. To minimize the impact, we conduct study of the condition and ecosystem of the site prior to any other mining activity to collect information and evaluate the potential of the site. Then mining and rehabilitation planning is carried out concurrently to avoid mining in areas with vulnerability and high biodiversity value and to limit mining areas to a minimum. We aim to preserve the original condition of the ecosystem as much as possible and lower the burden of rehabilitating the land after a mine is closed down. In 2013 we owned 103,953 hectares of land, but only 17,255 (16.6%) of which was disturbed. At the same time, we had rehabilitated 8,508 hectares of land, or about 49.3% of the disturbed area. For the rest of the area that was not used, we kept it in its original state so as to preserve forests and enhance biodiversity



Our rehabilitation master plans, which integrate involvement of the community, are put in place for every production site and are divided into short and long-term plans appropriate for the life of mines. We ensure the restoration of biodiversity and sustainability after the closure of the mines.

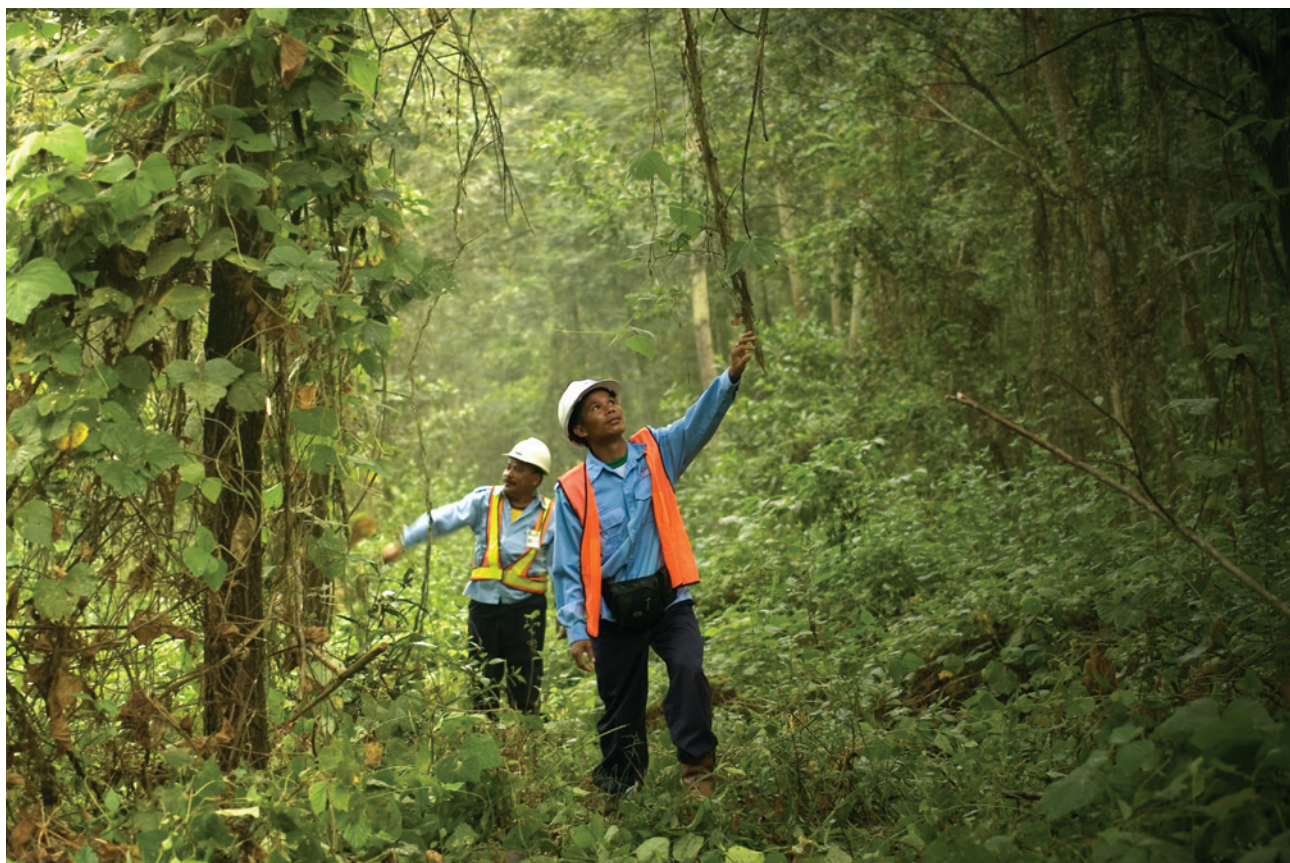
### Biodiversity at Bharinto and Indominco Mines in Indonesia

In 2010, PT. Indo Tambangraya Megah Tbk (ITM), a subsidiary of Banpu, entered into collaboration with the Purwodadi Botanical Garden to establish a biodiversity study and preservation project at the Bharinto Mine on the Kalimantan Island. Upon success of Bharinto Mine, we expanded the study to cover an additional area at the Indominco Mine.

Indonesia is home to some of the highest levels of biodiversity in the world. We are careful with its operations in every projects in order to avoid or minimize its impact on the ecosystem. The Bharinto Mine sits between the border of the East and Central districts of the Kalimantan, which is in an area of high environmental value. The program included field studies to examine the biodiversity richness in the area by producing an inventory of flora and fauna and measuring carbon stocks. Particular attention was paid to large indigenous trees, their abundance and keystone species. The study became the foundation for the rehabilitation program, which will be implemented by local authorities and communities after the mine is closed down for the sustainability of the area.

In addition, studies were made into the variety of wild orchids as they can be used as an indicator of the environmental quality of the area. Local communities were engaged in the assessment of their dependencies on the biodiversity function in the area, such as use of local plants as food, medicine, and other activities, so as to create partnership between us and the communities for the preservation and rehabilitation program in the future.

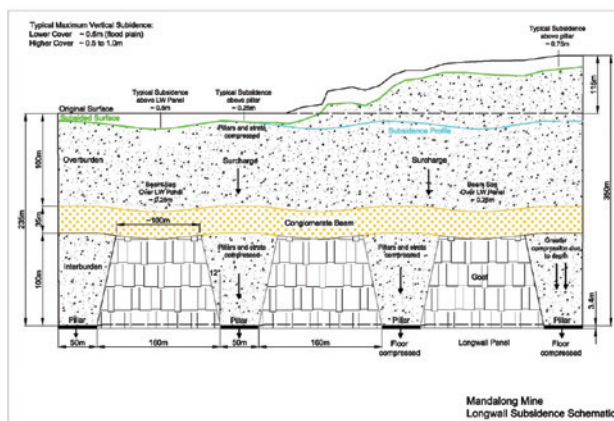
In 2013, we made advancement in our biodiversity study. The area for the study was expanded, more carbon stocks were measured, and keystone species were classified and propagated to be used in the rehabilitation program in the future. In the first stage, species have been collected and preserved at the Purwodadi Botanical Garden and will be propagated in the area after the mine is closed. The efforts to collect keystone species at the Bharinto Mine cover an area of around 5.6 hectares. Major plants found to have high capacity of carbon capture are Shorea sp. (meranti) and Eusideroxylon zwageri (ulin). At the Indominco Mine, meanwhile, the study covers an area of about 4.6 hectares. Major plants with high capacity of carbon capture are Eusideroxylon zwageri (ulin) and Dillenia excels. These data will be used to form the prototype of ecosystem for our rehabilitation process.





### Mandalong Sustainable Mine Design

Mandalong Mine lies within the catchment of Lake Macquarie, NSW, with surrounding topography ranging from the broad flat floodplain of Stockton and Morans Creeks up to the foothills of the Watagan Mountain range. The mine operates using the longwall mining method to produce in excess of five million tonnes of coal per annum.



A key feature of the mine lies in its sustainable mine design. The mine's regulatory approval allowed for 250 meter wide panels, with a maximum subsidence of almost 3 meters. However, Centennial chose to commit to minimize subsidence and thereby minimize environmental and community impact. Accordingly, the mine introduced narrower width longwall panels (160 meters) to take advantage of the spanning properties

of overlying conglomerate strata, which acts to reduce the levels of subsidence at ground level. This design change significantly reduced levels of subsidence in the order of 75% less than that caused from typical longwall operations. The outcome is minimal impact on property, infrastructure, the floodplain, the environment and the community. Since commencement of longwall operations in 2005, 14 longwall panels have been successfully extracted and 35 homes have been mined under. Extensive subsidence and environmental monitoring over this time has proven the effectiveness of the mine design and confirmed its ability to deliver low levels of subsidence and minimal impact on the environment and the community.

This substantial monitoring program includes:

- over 55 kilometers of subsidence monitoring lines;
- wetland and groundwater monitoring;
- monitoring of groundwater dependent ecosystems through flora surveys, flora and fauna monitoring and mapping;
- surface water monitoring; and
- flood modeling.

To assist in measuring and assessing possible impacts, techniques such as airborne laser scanning (LIDAR) are used to provide the final landform over the entire mining area. This data is then used, along with aerial photography, to update the flood model to assess the impact on the valley, private property, public roads and areas of remnant ponding and to develop any necessary mitigation measures.





### Newstan Managing Environmental Risk

Over the past five years, Centennial has been working on improvements to water management at its Newstan Colliery surface facilities. These improvements to reduce environmental risk include increasing sediment control, the construction of a clean water diversion and an increase in capacity of the final pollution control dam. This has culminated in the past 12 months with the construction of a new licensed discharge point, installation of a water treatment plant and the construction and automation of the Connolly's Dam Valve Farm to autonomously direct water across the site.

Taking 12 months to construct, with commissioning completed in December 2013, the new water treatment plant will allow Newstan Colliery to collect and treat all water from the site, including surface run off and water from underground workings

before it leaves the site, protecting the environment, in particular LT Creek, which flows into Lake Macquarie. The plant, which uses a conventional process of coagulation, flocculation, sedimentation and filtration, is fully automated and linked into the mine site SCADA communication system, providing 24 hour monitoring. The water treatment plant has an output capacity of 14 million litres per day, which is the equivalent of approximately six Olympic sized swimming pools.

The installation and treatment of water through this plant allows an increase in approved water discharge from the site, with a positive environmental impact. At a cost of A\$15M, the water treatment plant will greatly improve the quality of the water discharged and, together with the other components of the water management system, provide a sustainable outcome in the management of water at Newstan.



The new Licensed Discharge point at Newstan



Newstan water treatment plant

## Participation and Membership

Organization	Status	Role	Country
Environmental Engineering Association of Thailand	General Member	General Meetings	Thailand
NSW Minerals Council	General Member	Meetings, workshops, submissions	Australia
Minerals Council of Australia	General Member	Meetings, workshops, submissions	Australia
Australian Coal Association (ACA)	General Member	Meetings, workshops, submissions	Australia
Australian Coal Association Research Project (ACARP)	General Member	Meetings, workshops, submissions	Australia

## Awards and Recognitions

Site	Awards/Recognitions	By
Luannan Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Zhengding Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Zouping Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Lamphun Mine	Thailand Coal Award	Ministry of Energy
	ASEAN Energy Awards 2013	ASEAN Centre for Energy
Centennial Coal	Silver Partner, NSW Sustainability Advantage Programme	NSW Office of Environment and Heritage
	Oracle Excellence Award - Eco-Enterprise Innovation	Oracle Business Intelligence
Kitadin-Tandung Mayang Mine	ISO 14001:2004	SAI GLOBAL Certification Services
	Green Certificate - PROPER	East Kalimantan Governor
	Bronze Level - Environmental Management Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
Bharinto Mine	Green Certificate - PROPER	East Kalimantan Governor
	Green Certificate - PROPER	East Kalimantan Governor
Kitadin-Embalut Mine	Blue Level - PROPER	State Minister of Environment of the Republic of Indonesia
	Silver Level - Environmental Management Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal

Site	Awards/Recognitions	By
Trubaindo Mine	Green Certificate - PROPER	East Kalimantan Governor
	Blue Level - PROPER	State Minister of Environment of the Republic of Indonesia
	Bronze Level - Environmental Management Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
Indominco Mine	Gold Certificate - PROPER	East Kalimantan Governor
	Blue Level - PROPER	State Minister of Environment of the Republic of Indonesia
	Silver Level - Environmental Management Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
Jorong Mine	Bronze Level - Environmental Management Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
	Blue Level - PROPER	State Minister of Environment of the Republic of Indonesia







# COMMUNITY DEVELOPMENT

## Community Management <sup>(G4-26, G4-27)</sup>

We drive our business forward with our vision to be an energy provider with high responsibility for society and environment as well as with our mission to build sustainable values to the stakeholders and to be a good citizen to the host governments. We engrave in our policy the sustainable development principle to strengthen the fostered communities to become self-reliance in the long run. We seek to collaborate with local governments, local leaders, and contractors to create various projects to comply with community needs and maximize benefits of each community. In order to improve our community development activities to be more efficient, we have taken the following actions:

- Establishment of guidelines for 3 stages of community development work which are 1.) Community data gathering and assessment in the pre-mining stage, 2) Strengthening the community in mining stage, and 3.) Sustainability enhancement of the community in the mine closure stage
- Concentration and promotion of the collaboration of all stakeholders. The Community Consultative Committee or CCC in every country we operates consists of community leaders, local government representatives and our staff. With an aim to bring the betterment to the community, CCC plans, creates community development projects, implement and monitor the success of the projects.
- Provision of communication channels for local communities. In Centennial Group, for example, information on mine operation, progress of projects, or activities with the communities is published in local newspapers such as the Lithgow Mercury, Mudgee Guardian and Lakes Mail newspapers on monthly basis. The website is also made available to provide information for the community.

## Improving the quality of life

Banpu has our mission to improve the lives of people in the communities with an aim to grow sustainably together. Our development programs aim at community betterment in all aspects including economic, social, and environment. We empower and strengthen their ability to manage problems and raise the level in every aspect to achieve long-term self-reliance.

Our focus is placed on community development in parallel with our mining business both in Australia and Indonesia. Apart from our community development programs, we explore ways to improve the effectiveness of our community development work. In Indonesia, we conducted the Stakeholder Perception Surveys, to obtain opinions of community leaders, Community Consultative Committee (CCC), villagers, local authorities, media and NGOs within vicinities of our mining areas. In the past two years, the survey revealed that the interviewees were satisfied with job creation of our operation, the community development programs we have been creating, including our measures to reduce impacts from mining activities. Suggestions from the survey which are to enhance knowledge and skills of community and to promote higher degrees of community participation in all activities have been taken into consideration and into adjustment of short term and long-term community development strategic plans accordingly.

We are determined to respond the real needs of communities, to create better livelihood and to lead sustainable community development in the future. We seek collaboration with our contractors to increase effectiveness in community development programs both in terms of budget and resource utilization. We work together with seven contractors at Trubaindo mine, two contractors at Embalut mine, and three contractors at Indominco mine. We ensure that our community development plans and directions are made clear among our contractors in order to achieve the better results.

## Our Performance

Our efforts in improving the quality of life of community is divided into seven dimensions covering Economic and income development, Community relations, Basic infrastructure development, Educational development, Social promotion development, Health and sanitation development, and Environmental conservation.

### 1. Economic and Income Development

We view occupation and income generation as one of the most important issues. Therefore, we support various programs and activities at all sites where we operate to create economic stability of the communities in the long run. Examples of economic and income development programs include the followings:

- At Indominco mine, we sponsor the seaweed farming program which has expanded from one to three villages with over 200 participants and this program has been currently in the eighth year of our sponsorship. In agriculture, we promote various types of farming, namely vegetable, rice, rubber tree, and cattle. We also support the village housewives to engage in processed foods, dress making and seedlings. The seedlings are sold back to the mine for rehabilitation in the post-mining stage. We also initiate professional training on repair and maintenance of heavy machine and motorcycles to help increases villagers' income.
- At Kitadin-Embalut mine, we promote the use of post-mining lands for cattle farming, poultry farming, fish cage farming, vegetable farming, palm oil farming and rice farming. We also organize truck driving training and seeking job for the participants. Upon success of our community development programs, Kitadin-Embalut mine is chosen by government agencies and universities as their field trip destination for community development best practices.



Support for fish cage farming to community near Kintadin-Embalut Mine.



Supporting for tapioca farm to community near Kintadin-Embalut Mine.

- At Trubaindo mine, fish cage farming, rubber tree farming and poultry farming are promoted.
- At Trubaindo and Bharinto mines in the province of East Kalimantan where the indigenous Dayak community lives in close proximity of our mining area, we provide skill development programs such as truck driving, heavy machine repair and maintenance, small engine and motorcycle repair and maintenance, to youth and those in working age. We also encourage our mining contractors to provide job opportunities for those trainees.
- At Jorong mine, we support fish farming, rubber farming, goat farming, food processing, mushroom farming, organic fertilizer production as well as an establishment of a savings group (microfinance or MFI) to serve as funds for villagers. We also support housewives to produce local Sasirangan Batik fabrics.
- At Centennial mine in Australia, we support local procurement by setting aside 40% annual purchasing for local goods and services, mostly by employment, service contracts, etc.



## 2. Community Relations

- At Trubaindo mine, our employees volunteer in community development programs including tree planting, church and classroom painting, English and mathematics teaching, building safety awareness of the students, repairing and safety inspection of home electrical appliances. In addition to strengthening relationship with the communities, these activities encourage our employees to understand villagers' way of lives and cultures better.
- In Indonesia, it is part of all mine policies to provide assistance to the communities when encountering in a disaster such as fire or flood. We provide aids of food and life-aid items in the early stage until restoration of damaged properties.



Supporting for educational development at schools near Indominco Mine.



Supporting for educational development at schools near Bharinto Mine.

- It is part of all mine policy to regularly attend community events such as religious tradition or other activities in the communities.
- In Australia, our Centennial Group's mines located near residential areas of indigenous communities such as Aboriginal communities, Gundungurra Tribal People, North-East Wiradjuri People and The Wellington Valley Wiradjuri Aboriginal People. In order to reduce effects from mining activities, we have made agreements with the organization of indigenous groups on land use so-called Four Native Title Agreements.

### ITM's Director Pays a Visit to Besiq Village

On January 30, 2013 Khun Pongsak Thong-ampai, ITM's President Director visited Besiq Village of Damai Sub-district, West Kutai Regency, East Kalimantan Province to observe community development programs implemented in the village. Khun Pongsak met mothers who produce snacks and provide a catering service for the Besiq area. Previously, community activities such as meetings and cultural events like weddings had to use a catering service from the nearest city which was four hours traveling time away from Besiq.



In addition, Khun Pongsak met the Community Consultative Committee, Subdistrict head, village chief, and representatives from Village Consultative Assembly (Badan Permusyawaratan Desa or BPD), inspecting a number of integrated programs such as the construction of village library, establishing a cooperative, providing additional nutrition for toddlers, and school renovations. They also discussed the possibility of future welfare projects for the community.

### 3. Basic Infrastructure Development

Due to the remoteness of most of our mine sites in Indonesia, basic infrastructures remain primary needs of the communities. Last year, advised by the local governments, we partnered with our contractors to build a number of basic infrastructures to the communities as follows:

- At Indominco mine, we built the farm access roads to an agricultural area of Suka Damai, making transportation of people and farm products faster and more convenient. In addition, we constructed a multi-purpose building for young children at Danau Redan village and a school building at Bontang Lestari village.



Supporting for maternal and child health care to community near Indominco Mine.



Supporting for water filter to the community at Trubaindo Mine.

- At Kitadin-Embalut mine, we constructed a mosque.
- At Trubaindo mine, we built a number of buildings to serve religious and cultural purposes and provided infrastructure maintenance including:
  - an art and cultural hall for Dayak indigenous in Lotaq village (completed) and in Dilang Puti village (on-going)
  - one Christian church in Muara Bergai village
  - a cafeteria at a child care center in Muara Bunyut village
  - repairing of roads connecting among villages
  - a power generator in Bergai village with training courses on management and maintenance of a power plant to the community committee

#### Trubaindo Mine Assists Muara Begai Villagers with Electricity Management Coaching

Trubaindo Mine (TCM) brought in the Green Energy Institution for Muara Begai villagers to give assistance in electricity management. On June 4, 2013, the team started a 4-day assessment to identify the main issues in the field, seeing villagers and local electricity administrators.

As we know, last year, ITM Jakarta installed a 100 KVA diesel fueled electricity generator for 95 households in Muara Begai, a remote village located in Muara Lawa Sub-District of West Kutai Regency, East Kalimantan Province, along with 50 power poles and cables stretching for 2.5 kilometers.

Such assistance was needed to encourage the villagers and provide them with the ability to run the generator so that it would not be wastefully abandoned because of a lack of management skills.



After the assessment, a follow up 6 month's assistance will be provided. The Green Energy Institution will encourage villagers to form a group to manage their own electricity supply including improving their knowledge and skills in administration, selfmanagement and mobilizing existing human resources to establish and expand the electricity network.



#### 4. Educational Development

In Indonesia, we have undertaken various initiatives to bring better education for the communities and related agencies as follows:

- Educational supports, altogether for every mine sites, we have granted over 700 scholarships a year to students from primary school to undergraduate levels. At Bharinto mine, we have granted nine scholarships to the youth to study in a nursing college with a condition for them to come back to work in the community after graduation.
- At Indominco mine, we continue providing non-formal education in three villages for three consecutive years. These schools enable villagers to obtain higher education. We also organize teacher training programs for schools located around the mine to improve capabilities and skills of teachers. We also sponsor a school bus service for 200 students.
- At Kitadin-Embalut mine, we sponsor a school bus for 120 students for all year long to make it convenient for children to go to school and to lower burden of parents.
- At Kitadin-Embalut and Bharinto mines, we provide computer trainings for teachers.
- At every mine sites, we sponsor learning and teaching tools as well as books for school library.

#### Luannan Continues its Education Support for the 6<sup>th</sup> Consecutive Year

On May 30, 2013, Luannan Plant donated RMB 50,000 (around USD 8,200) to Luannan Banpu Special Education School. On this occasion, Khun Vanchai Lertsaroj, Country Head-Banpu China, Mr. Chen Lin, Head of Power China, Khun Benjawan Ratanamoong, Vice President-Finance China, and Mr. Chen Junzhi, General Manager of Luannan Plant joined the donation ceremony. On behalf of the government, Mrs. Lu Cuijuan, Vice Governor of Luannan County attended the ceremony and appreciated the plant's long term support. She stated that the



Luannan Power Plant, joined with the government in witnessing every development step of the school.

At the event, Mrs. Liu Yanli, Head of the school thanked the representatives for the support from local government and all social sectors which allowed the school to provide free education since September 2012. After the ceremony, participants visited the newly built school library, sensory integration training center, shoeshine room, newlyrenovated cooking classroom, multifunction room and other classrooms.

This program has been running for six consecutive years and has so far sponsored RMB 395,867 (around USD 64,000) to help improve the study and living condition of 91 disabled kids and 34 teachers.





### 5. Social Promotion Development

- In Indonesia, all mine sites provide strong support on community activities that promote social, religious and cultural traditions such as events with the communities on important religious and social days.

- In Australia, the Centennial Group supports Men's Shed Organization in the North and Northwest where we operate. This organization, which provides assistance in the knowledge transfer, exchange of experiences and life learning skills between the new generation and the old generation helps continue the sustainability of the community and society.

#### Angus Place and Springvale Mines on Board the Tractor Trek

Each year Centennial Coal's Angus Place Mine holds the Centennial Coal Charity Golf Day to raise funds for charities and organizations in the Lithgow region, where our Western operations are located. The proceeds raised from this year's Golf Day event continue to enrich the local community, with funds being donated to Camp Quality's Tractor Trek.

Camp Quality is a children's cancer charity, which aims to create a better life for every child living with cancer. The Tractor Trek raised much needed funds for Camp Quality to directly assist 40 families and 84 children who are living with or are directly affected by cancer in the local Lithgow area. As part of the three-day trek, the 30 travelling vintage tractors stopped off at Portland's Kremer Park to put on their display. "The Tractor Trek involved a three day loop, starting and finishing in Orange. It was a great way to raise awareness for Camp Quality as you don't see a group of vintage tractors travel through Portland every day," said Centennial's Fiona Van Der Velden.

The Centennial Coal Charity Golf Day has supported local charities over the past 10 years and is organised by Angus Place Mine employees. The Tractor Trek raised over AUD \$33,000, thanks to donations from Centennial's Coal Charity Golf Day, Centennial's Springvale operation and Henry Plant and Equipment Hire (a Lithgow based mining contractor, which provides services to



a number of the Group's mines in the region). To add to Angus Place's donation, Centennial's Springvale employees also raised \$2,000 to donate to the cause. "Both Angus Place and Springvale are known in the local area for their generosity and support for local charities. This is another fine example of our employees demonstrating their commitment to the community in which they live and helping out those facing tough times," concluded Centennial's Fiona Van Der Velden. Mandalong Supports Local Street Festival. The main street of Morisset, located near Centennial Coal's Mandalong Mine, came alive with market stalls, stage performances and amusement rides for the annual Morisset Street Beat Festival.

## 6. Health and Sanitation Development

- At Indominco, Kitadin-Embalut, Trubaindo and Bharinto mines, we provided medical mobile units for health check up of the residents of 37 villages.
- At Indominco, Trubaindo, Bharinto, and Jorong mines, we held maternal and child health care trainings and

sponsored supplementary foods to pre-school children in every villages.

- At Trubaindo mine, we sponsored training for public health officers and computers to health centers to manage patient database efficiently.

### Trubaindo Mine Provides Free Medical Services for West Kutai's People

From June 1–4, 2013, Trubaindo Mine (TCM) offered free medical services to local citizens from 20 villages located around the mine site in West Kutai Regency. Arranged at Harapan Insan Sendawar Hospital—the biggest hospital in Sendawar, the capital city of West Kutai Regency, the medical services covered cataract surgery, provision of prosthetic hands and legs, and countermeasures against psychosis (mental illness).

This program was organized by TCM's Community Relations in collaboration with Harapan Insan Sendawar Hospital, East Kalimantan Sport and Eye Health Center, and the West Kutai



Health Agency and People's Clinic. TCM provided support on promotion, updating data of patients residing in sub-districts of Melak, Muara Lawa, Damai, and Bentian Besar, and transportation for the patients.

## 7. Environmental Conservation

- At Indominco mine, we partnered with local residents and Forestry Department to plant trees in the surrounding mangrove covering an area of 77 Ha. This activity aimed at community's participation in taking care of mangrove forest.

- At Kitdain-Tandung Mayang, Trubaindo, and Bharinto mines, we organized environmental conservation awareness programs in schools and tree planting programs in the communities.

### Trubaindo Mine Takes Part in One Billion Tree Planting

In supporting East Kalimantan's One Billion Trees Planting, Trubaindo Mine organized a tree planting activity for the community areas of Trubaindo Mine in Empas Village, Melak Sub-District, West Kutai Regency on November 28, 2013.

The West Kutai Regency Administration encouraged the people to plant 32,000 durian tree seeds. Centering on land belonging to the West Kutai's Farming and Husbandry Agency, the planting campaign attracted 7,279 participants including government staff, the military, police, private companies and students from elementary and high schools from the regency. Trubaindo Mine donated 100 durian tree seeds to the campaign. The Regent Ismael Thomask officiated during the first planting. Trubaindo Mine's External Relations Manager Mr. Apriadi Djamhurie Gani was present at the opening along with Finance and Accounting Manager Mr. Lauren Karyadi, Safety Manager Mr. Haryata, and Deputy Head of Mine Engineering Mr. Wahyu Haryanto.

The Indonesia Record Museum was invited to witness the campaign which created a new national record. This activity was intended to conserve durian as a local fruit from West Kutai as well as to raise awareness in all sections of society of the importance of preserving trees sustainably in order to mitigate global climate change and avoid natural disasters during the rainy season.



## Awards and Recognitions

Site	Awards/Recognitions	By
PT. Indo Tambangraya Megah Tbk (ITM)	Social Business Innovation Award	Leading Economic News Magazine
Kitadin-Embalut Mine	Platinum award in promoting poultry farming in the communities in the mined area	Coordinating Ministry for People's Welfare of Indonesia and Corporate Forum for Community Development (CFCD) *
	Gold medal award for the most dedicated person in community development - Mr. Bambang Karuweyan of Kitadin-Embalut mine	
Indominco Mine	Gold medal award in community business for the Cooperative Business Unit (KSU) under support of Indominco mine by Empowerment of people's economic institution. (Pemberdayaan Lembaga Ekonomi Rakyat)	
	Gold medal award in education development for Community Learning Center (non-formal education)	
	Silver medal award in public health promotion for maternity and child care program	
Jorong Mine	Silver medal award in environmental management for mangrove rehabilitation project	
	Silver medal award in the environmental management for bio-fertilizer program	
Lumphun Mine	Corporate Social Responsibility 2013 (CSR – DPIM NETWORK 2013)	Department of Primary Industries and Mines, Ministry of Industry
	Certification of Preventing and Resolving Drug Problems at the Work Place.	Lamphun Province Official of Labour Protection and Welfare

\* Recognized in accordance with the United Nations Millennium Development Goal (MDG)





## PERFORMANCE DATA



## Economic Performance <sup>(G4-22)</sup>

Data	Unit	2012	2013
Revenues	USD thousand	3,774,745	3,350,891
Profit from Operation	USD thousand	628,000	309,000
Net Profit	USD thousand	271,683	102,655
Gross Profit Margin	%	38.22	32.09
Interest Coverage Ratio	Times	10.15	5.25
Net Debt to Equity Ratio	Times	0.79	1.07

## Economic Distributions

Stakeholder	Unit	2012	2013
Suppliers & Contractors <sup>(a)</sup>	USD thousand	1,775,009	1,738,344
Public Sector <sup>(b)</sup>	USD thousand	550,557	415,097
Shareholders <sup>(c)</sup>	USD thousand	185,167	123,439
Employee <sup>(d)</sup>	USD thousand	323,290	311,210
Financial Institutions <sup>(e)</sup>	USD thousand	122,272	126,694
Community, Society and Environment <sup>(f)</sup>	USD thousand	30,942	21,396

<sup>(a)</sup> Estimated from Cost of Sales less Employee Expense, Depreciation and Amortization

<sup>(b)</sup> Includes Royalty Fee, Corporate Income Tax, Local Maintenance Tax, Property Tax, Specific Business Tax and Other Taxes

<sup>(c)</sup> Dividends Paid

<sup>(d)</sup> Includes Salary, Wage, Welfare, Provident Fund Contribution and Employees Development Expense

<sup>(e)</sup> Includes Interest Expense, Financial Expense

<sup>(f)</sup> Includes Expense for Community Development, Environment and Land Compensation

## People

Data	Unit	2011	2012	2013
Employee – Total	Person	6,413	6,459	6,268
Employee – by Country				
• Thailand	%	6.7	6.9	6.7
• Indonesia	%	50.4	50.1	48.7
• China	%	14.3	14.6	16.2
• Australia	%	28.6	28.5	28.4
Employee – by gender <sup>(j)</sup>				
• Male	%	84.5	84.2	87.7
• Female	%	15.5	15.8	12.3
Employee – by Nationality				
• Thai	%	6.7	6.9	6.7
• Indonesian	%	50.3	49.8	48.5
• Chinese	%	14.2	14.5	16.1
• Australian	%	28.7	28.6	28.5
• Others	%	0.2	0.2	0.2
Employee – by Type				
• Permanent	%	91.1	91.1	93.5
• Temporary	%	8.9	8.9	6.5

Data	Unit	2011	2012	2013
Employee – by Level				
• Senior Management	%	0.6	0.6	0.7
• Middle Management	%	5.2	5.1	5.0
• Junior Management	%	18.9	17.0	24.9
• Staff and Supervisor	%	75.3	77.3	69.4
Turnover rate – by Country				
• Thailand	%	5.3	5.0	11.7
• Indonesia	%	7.2	7.2	9.6
• China	%	7.9	6.9	7.6
• Australia	%	5.0	10.0	6.0
Average Hours of Training per Year – by Country <sup>(k)</sup>				
• Thailand	Hrs/Employee	40.0	39.2	28.8
• Indonesia	Hrs/Employee	8.8	24.0	22.1
• China	Hrs/Employee	41.6	42.4	32.0
• Australia	Hrs/Employee	-	-	-
Average Hours of Training per Year – by Level <sup>(k)</sup>				
• Senior Management	Hrs/Employee	22.4	26.4	19.7
• Middle Management	Hrs/Employee	33.3	36.8	35.8
• Junior Management	Hrs/Employee	40.5	34.1	37.0
• Staff and Supervisor	Hrs/Employee	26.7	20.8	22.4
Return to work after parental leave – by Country <sup>(m)</sup>				
• Thailand	%	-	-	88.9
• Indonesia	%	-	-	-
• China	%	-	-	100.0
• Australia	%	-	-	-
Percentage of employees covered by collective bargaining agreements <sup>(p)</sup>	%	64.6	68.7	81.4

<sup>(j)</sup> Starting to consolidate data from Australia since 2013

<sup>(k)</sup> Exclude data of Australia

<sup>(m)</sup> Starting to collect data since 2013

<sup>(n)</sup> No woman

<sup>(p)</sup> Exclude data of Australia and China

## Occupational Health & Safety

Data	Unit	2011	2012	2013
Number of Fatal Injury	Person	1	2	3
Injury Frequency Rate (IFR) – Total <sup>(g)</sup> <sup>(h)</sup>	Person/million man-hour	0.23	0.42	0.34
Injury Frequency Rate (IFR) – by Country				
• Australia <sup>(i)</sup>	Person/million man-hour	N/A	N/A	N/A
• China <sup>(g)</sup>	Person/million man-hour	-	0.55	0
• Indonesia	Person/million man-hour	0.21	0.42	0.35
• Thailand	Person/million man-hour	3.46	0	0
Lost Time Injury Frequency Rate (LTIFR) – Total <sup>(g)</sup>	Person/million man-hour	2.69	3.15	5.04
Lost Time Injury Frequency Rate (LTIFR) – by Country				
• Australia	Person/million man-hour	13.78	10.00	6.16
• China <sup>(g)</sup>	Person/million man-hour	-	27.93	0
• Indonesia	Person/million man-hour	0.85	1.70	5.13
• Thailand	Person/million man-hour	124.46	0	0

<sup>(g)</sup> Starting to consolidate data from China since 2012

<sup>(h)</sup> Not include data of Australia

<sup>(i)</sup> Not applicable due to data under standardization



**Environment** (G4-22)

Data	Unit	2011	2012	2013
Production – Coal	Million Tonnes	39.57	41.58	42.80
Production – Electricity	GWh	1,399	1,437	1,496
Production – Steam	TJ	14,272	14,543	15,309
Energy Consumption	TJ	44,064	47,896	49,936 <sup>(q)</sup>
• Direct Energy	TJ	42,987	47,894	49,359 <sup>(q)</sup>
• Indirect Energy	TJ	1,076	1,123	577 <sup>(q)</sup>
Direct Energy – by Fuel Type				
• Diesel	%	29	35	33 <sup>(q)</sup>
• Coal	%	71	65	67 <sup>(q)</sup>
• Gasoline	%	0.01	0.01	0.03 <sup>(q)</sup>
Indirect Energy – by Source				
• Electricity	%	100	100	100 <sup>(q)</sup>
GHG Emissions	Million Tonnes CO <sub>2</sub>	5.62	5.85	4.95 <sup>(q)</sup>
• Direct GHG Emissions (Scope 1)	%	95	95	97 <sup>(q)</sup>
• Indirect GHG Emissions (Scope 2)	%	5	5	3 <sup>(q)</sup>
GHG Emissions Intensity				
• Indonesia	Tonnes CO <sub>2</sub> /Tonnes	0.0609	0.0705 <sup>(r)</sup>	0.0600
• Australia	Tonnes CO <sub>2</sub> /Tonnes	0.1188	0.1130	N/A <sup>(w)</sup>
• China	kg CO <sub>2</sub> /kWh	0.3492	0.3455 <sup>(r)</sup>	0.3526
Water Consumption				
• Indonesia	Million m <sup>3</sup>	64.79	21.36	15.34
• Australia	Million m <sup>3</sup>	3.69	3.65	4.38
• China	Million m <sup>3</sup>	10.34	8.94	9.25
Water Recycled/Reused				
• Indonesia	Million m <sup>3</sup>	N/A	N/A	N/A
• Australia	Million m <sup>3</sup>	0.32	0.64	0.29
• China	Million m <sup>3</sup>	-	-	1.35
Water Discharge				
• Indonesia	Million m <sup>3</sup>	N/A	N/A	N/A
• Australia	Million m <sup>3</sup>	11.11	14.85	14.39
• China	Million m <sup>3</sup>	-	0.43	0.45
Compliance Status – Effluents <sup>(u)</sup>				
• pH	%	100	100	100
• TSS	%	100	100	100
• Fe	%	100	100	100
• Mn	%	100	100	100
Compliance Status – Emissions <sup>(v)</sup>				
• SO <sub>x</sub>	%	100	100	100
• NO <sub>x</sub>	%	100	100	100
• Particulate	%	100	100	100
Air Quality <sup>(v)</sup> – SO <sub>x</sub>				
• Average Concentration	mg/m <sup>3</sup>	-	234	203
• Amount	kilotonnes	-	2.27	1.94
Air Quality <sup>(v)</sup> – NO <sub>x</sub>				
• Average Concentration	mg/m <sup>3</sup>	-	35	29
• Amount	kilotonnes	-	0.50	0.28

Data	Unit	2011	2012	2013
Mining Overburden	Million m <sup>3</sup>	334.15	391.12	361.84
Hazardous Waste	Tonnes	N/A <sup>(s)</sup>	N/A <sup>(s)</sup>	6,800
Hazardous Waste – Recycled	Tonnes	N/A <sup>(s)</sup>	N/A <sup>(s)</sup>	5,233
Non-Hazardous Waste <sup>(t)</sup>	Tonnes	N/A <sup>(s)</sup>	N/A <sup>(s)</sup>	5,293
Non-Hazardous Waste – Recycled	Tonnes	N/A <sup>(s)</sup>	N/A <sup>(s)</sup>	2,536
Significant Spills				
• Number of Spill	Time	1	1	4
• Volume	Liter	200	439	1,210
Land Own <sup>(u)</sup>	Hectare	80,790	103,953	103,953
Disturbed Area <sup>(u)</sup>				
• During the Year	Hectare	3,005	1,700	1,316
• Accumulate	Hectare	14,239	15,939	17,255
Rehabilitated Area <sup>(u)</sup>				
• During the Year	Hectare	676	963	1,137
• Accumulate	Hectare	6,408	7,371	8,508
Ratio of Disturbed Area to Land Own	%	17.6	15.3	16.6
Ratio of Rehabilitated Area to Disturbed Area	%	45.0	46.2	49.3
Significant Fine for Non-Compliance in Environmental Aspects				
• Number of Fine	Time	0	0	0
• Amount of Fine	USD	0	0	0

<sup>(a)</sup> Data of Australia incorporated only audited data during January-June, not include data for July-December which are under the audit process by Australian Federal Government

<sup>(b)</sup> Adjusted data from the last report

<sup>(c)</sup> Data not available since reporting standards are revised since January 2013

<sup>(d)</sup> Excludes mining related materials such as tailings and waste rock

<sup>(u)</sup> Data only for coal business

<sup>(v)</sup> Data only for power business

<sup>(w)</sup> Data not available since it is under the audit process by Australian Federal Government









## GRI CONTENT INDEX

# GRI CONTENT INDEX

Indicator	Description	Page		External Assurance	Reference/Omission
		Sustainability Report	Annual Report		
GENERAL STANDARD DISCLOSURES					
Strategy and Analysis					
G4-1	Statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability	9	12	-	
G4-2	Description of key impacts, risks, and opportunities	9, 20, 36	42-54	-	
Organizational Profile					
G4-3	Name of the organization	Cover		-	
G4-4	Primary brands, products, and services	14-19		-	
G4-5	Location of the organization's headquarters	Back cover		-	
G4-6	Number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report	6, 10		-	
G4-7	Nature of ownership and legal form		18	-	
G4-8	Markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries)	14-19	27-41	-	
G4-9	Scale of the organization	6, 14-15, 73-74	41	-	
G4-10	Total number of employees/workforce	73-74		-	
G4-11	Percentage of total employees covered by collective bargaining agreements	74		-	
G4-12	Organization's supply chain	73	44-45	-	
G4-13	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	10		-	
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization	16-19, 21, 27, 37, 42, 49, 64	42-54	-	
G4-15	Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses	33, 41		-	
G4-16	Memberships of associations (such as industry associations) and national or international advocacy organizations in which the organization: - Holds a position on the governance body - Participates in projects or committees - Provides substantive funding beyond routine membership dues - Views membership as strategic	26, 29, 34, 46, 63		-	
Identified Material Aspects and Boundaries					
G4-17	a. All entities included in the organization's consolidated financial statements or equivalent documents b. Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report	10	41	-	
G4-18	a. Explain the process for defining the report content and the Aspect Boundaries b. Explain how the organization has implemented the Reporting Principles for Defining Report Content	10		-	
G4-19	List all the material Aspects identified in the process for defining report content	9, 20, 30, 36		-	
G4-20	For each material Aspect, report the Aspect Boundary within the organization	10		-	
G4-21	For each material Aspect, report the Aspect Boundary outside the organization	10		-	
G4-22	Effect of any restatements of information provided in previous reports, and the reasons for such restatements	54, 73, 75-76		-	
G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	10		-	

Indicator	Description	Page		External Assurance	Reference/Omission
		Sustainability Report	Annual Report		
Stakeholder Engagement					
G4-24	List of stakeholder groups engaged by the organization	11-13		-	
G4-25	Basis for identification and selection of stakeholders with whom to engage	11-13		-	
G4-26	Organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process	11-13, 16-17, 24-25, 33, 64	61-62	-	
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	11-13, 16-17, 24-25, 33, 64		-	
Report Profile					
G4-28	Reporting period (such as fiscal or calendar year) for information provided			-	Calendar Year (Jan-Dec)
G4-29	Date of most recent previous report (if any)			-	Sustainability Report 2012
G4-30	Reporting cycle (such as annual, biennial)			-	Annual
G4-31	Contact point for questions regarding the report or its contents	86		-	
G4-32	a. Report the 'in accordance' option the organization has chosen b. Report the GRI Content Index for the chosen option c. Report the reference to the External Assurance Report, if the report has been externally assured"	10, 78-85		-	
G4-33	a. Report the organization's policy and current practice with regard to seeking external assurance for the report b. If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided c. Report the relationship between the organization and the assurance providers d. Report whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report	10		-	
Governance					
G4-34	Governance structure of the organization, including committees of the highest governance body	31	22-26	-	
G4-35	Report the process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees	32	22	-	
G4-36	Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body	32	22	-	
G4-37	Report processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics	33		-	
G4-38	Report the composition of the highest governance body and its committees	31	23-26	-	
G4-39	Report whether the Chair of the highest governance body is also an executive officer	31	23-26	-	
G4-40	Report the nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members	30-33	25-26	-	
G4-41	Report processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders.	32	64	-	
G4-42	Report the highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts	31-32	63	-	
G4-43	Report the measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics		23-24	-	
G4-44	a. Report the processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics b. Report actions taken in response to evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics	31-32	67	-	



Indicator	Description	Page		External Assurance	Reference/Omission
		Sustainability Report	Annual Report		
G4-45	a. Report the highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities b. Report whether stakeholder consultation is used to support the highest governance body's identification and management of economic, environmental and social impacts, risks, and opportunities	31-32	63	-	
G4-46	Report the highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics	32	66	-	
G4-47	Report the frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities	31	65	-	
G4-48	Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered	31		-	Chief Executive Officer (CEO) and Deputy Chief Executive Officer (DCEO)
G4-49	Report the process for communicating critical concerns to the highest governance body	31, 33	55, 63, 65	-	
G4-50	Report the nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them	-		-	
G4-51	a. Report the remuneration policies for the highest governance body and senior executives b. Report how performance criteria in the remuneration policy relate to the highest governance body's and senior executives' economic, environmental and social objectives"	32	65	-	
G4-52	Report the process for determining remuneration. Report whether remuneration consultants are involved in determining remuneration and whether they are independent of management. Report any other relationships which the remuneration consultants have with the organization.	32	65	-	
G4-53	Report how stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable	32	65	-	
G4-54	Report the ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country	-		-	
G4-55	Report the ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country	-		-	

### Ethics and Integrity

G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	5, 24-25, 33	64, 69-71	-	
G4-57	Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as helplines or advice lines	33		-	
G4-58	Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines	33		-	

### SPECIFIC STANDARD DISCLOSURES

#### Disclosures on Management Approach

G4-DMA	Disclosures on Management Approach	21, 37, 42, 50, 52, 55, 57, 64	13, 27	-	
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#### Economic

Economic Performance					
G4-EC1 <sub>COMM</sub>	Direct economic value generated and distributed Payments to local communities as part of land use agreements, not including land purchases	73	41	-	
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	52-53		-	
G4-EC3	Coverage of the organization's defined benefit plan obligations		122, 254-255	-	
G4-EC4	Financial assistance received from government	-			

Indicator	Description	Page		External Assurance	Reference/Omission
		Sustainability Report	Annual Report		
Market Presence					
G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation			-	Entry level wage of Banpu is higher than local minimum wage at significant locations of operation with an equal opportunity to employees regardless of gender.
G4-EC6 <sub>COMM</sub>	Proportion of senior management hired from the local community at significant locations of operation	-		-	
Indirect Economic Impacts					
G4-EC7	Development and impact of infrastructure investments and services supported	67		-	
G4-EC8	Significant indirect economic impacts, including the extent of impacts	65-70		-	
Procurement Practices					
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	65, 73		-	
Environmental					
Materials					
G4-EN1	Materials used by weight or volume	75-76		-	
G4-EN2 <sub>COMM</sub>	Percentage of materials used that are recycled input materials Includes both post-consumer recycled material and waste from industrial sources (e.g. new scrap from fabricators and old scrap from end-of-life equipment), but excludes internal recycling within the facility (home scrap)	N/A		-	As a producer of raw materials, we do not use recycled input materials.
Energy					
G4-EN3	Energy consumption within the organization	50-51, 75		-	
G4-EN4	Energy consumption outside of the organization	50-51, 75		-	
G4-EN5	Energy intensity	75		-	
G4-EN6	Reduction of energy consumption	50-51, 75		-	
G4-EN7	Reductions in energy requirements of products and services	16-17		-	
Water					
G4-EN8	Total water withdrawal by source	75		-	
G4-EN9	Water sources significantly affected by withdrawal of water	N/A		-	Water consumption is very minimal comparing to the amount of rainfall and natural water flowing through the concession area.
G4-EN10	Percentage and total volume of water recycled and reused	75		-	
Biodiversity					
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	56-59		-	
G4-EN12 <sub>COMM</sub>	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas Include impacts identified as a consequence of any resettlement and closure activities reported under Indicators MM9 and MM10 respectively	56-59		-	
MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	57, 76		-	
G4-EN13 <sub>COMM</sub>	Habitats protected or restored	58		-	
G4-EN14	Total number of IUCN red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	57		-	
MM2	The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place	58		-	
Emissions					
G4-EN15	Direct greenhouse gas (GHG) emissions (scope 1)	52-54, 75		-	
G4-EN16	Energy indirect greenhouse gas (GHG) emissions (scope 2)	52-54, 75		-	
G4-EN17	Other indirect greenhouse gas (GHG) emissions (scope 3)	-		-	
G4-EN18	Greenhouse gas (GHG) emissions intensity	54, 75		-	
G4-EN19	Reduction of greenhouse gas (GHG) emissions	52-54, 75		-	
G4-EN20	Emissions of ozone-depleting substances (ODS)	-		-	
G4-EN21 <sub>COMM</sub>	NOX, SOX, and other significant air emissions Include emissions from both major mobile sources and on-site stationary sources	55-56, 75		-	
Effluents and Waste					
G4-EN22	Total water discharge by quality and destination	75		-	
G4-EN23 <sub>COMM</sub>	Total weight of waste by type and disposal method	76		-	

Indicator	Description	Page		External Assurance	Reference/Omission
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MM3	Total amounts of overburden, rock, tailings, and sludges and their associated risks	76	52, 53	-	
G4-EN24 <sub>COMM</sub>	Total number and volume of significant spills	76		-	
G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel convention <sup>2</sup> annex i, ii, iii, and viii, and percentage of transported waste shipped internationally	-		-	
G4-EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	-		-	
Products and Services					
G4-EN27	Extent of impact mitigation of environmental impacts of products and services	16		-	
G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category	16		-	
Compliance					
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	41, 76		-	
Transport					
G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	-		-	
Overall					
G4-EN31	Total environmental protection expenditures and investments by type	73		-	
Supplier Environmental Assessment					
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	44		-	
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	14, 17		-	
Environmental Grievance Mechanisms					
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	-		-	
Social: Labor Practices and Decent Work					
Employment					
G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region	73-74		-	
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or parttime employees, by significant locations of operation	-		-	
G4-LA3	Return to work and retention rates after parental leave, by gender	74		-	
Labor/Management Relations					
G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	-		-	
MM4	Number of strikes and lock-outs exceeding one week's duration, by country			-	None
Occupational Health and Safety					
G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	-		-	
G4-LA6 <sub>COMM</sub>	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	42-45, 74		-	
G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	-		-	
G4-LA8	Health and safety topics covered in formal agreements with trade unions	-		-	
Training and Education					
G4-LA9	Average hours of training per year per employee by gender, and by employee category	74		-	
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	21-24		-	
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	21-24		-	100% regular performance reviewed
Diversity and Equal Opportunity					
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	73-74	78-85		



Indicator	Description	Page		External Assurance	Reference/Omission
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Equal Remuneration for Women and Men					
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	-		-	
Supplier Assessment for Labor Practices					
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	-		-	
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	-		-	
Labor Practices Grievance Mechanisms					
G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	-		-	
Social: Human Rights					
Investment					
G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening			-	All significant contractors are fully complied with the local labor laws.
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	-		-	
Non-discrimination					
G4-HR3	Total number of incidents of discrimination and corrective actions taken			-	None
Freedom of Association and Collective Bargaining					
G4-HR4 <sub>COMM</sub>	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights			-	The company will not interfere such activities and strictly handle it in accordance with the relevance law, rules and regulations.
Child Labor					
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor			-	It is our policy to respect and comply with local laws, regulations and traditions of every place we conduct our business. We intend to treat employees with respect for dignity of human beings.
Forced or Compulsory Labor					
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor			-	It is our policy to respect and comply with local laws, regulations and traditions of every place we conduct our business. We intend to treat employees with respect for dignity of human beings.
Security Practices					
G4-HR7	Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations			-	All operational employees including security personnel are trained as part of company regulations. In addition, the human rights aspects are occasionally addressed in weekly safety talk.
Indigenous Rights					
G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken			-	None
MM5	Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities	66		-	
Assessment					
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	-		-	
Supplier Human Rights Assessment					
G4-HR10	Percentage of new suppliers that were screened using human rights criteria			-	All significant contractors are fully complied with the local labor laws.
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	-		-	
Human Rights Grievance Mechanisms					
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	-		-	

Indicator	Description	Page		External Assurance	Reference/Omission
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Social: Society					
Local Communities					
G4-SO1 <sub>COMM</sub>	Percentage of operations with implemented local community engagement, impact assessments, and development programs Report whether there are programs in place for assessing the impacts of operations on local communities"	64		-	100% of operations
G4-SO2	Operations with significant actual and potential negative impacts on local communities	-		-	
MM6	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples	-		-	
MM7	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples, and the outcomes	66		-	
Artisanal and Small-scale Mining					
MM8	Number (and percentage) or company operating sites where artisanal and small-scale mining (ASM) takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks			-	None
Resettlement					
MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process			-	None
Closure Planning					
MM10	Number and percentage of operations with closure plans			-	All mine sites have closure plans.
Anti-corruption					
G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	-		-	
G4-SO4	Communication and training on anti-corruption policies and procedures	33	70	-	
G4-SO5	Confirmed incidents of corruption and actions taken			-	None
Public Policy					
G4-SO6	Total value of political contributions by country and recipient/beneficiary	-		-	
Anti-competitive Behavior					
G4-SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	-		-	
Compliance					
G4-SO8 <sub>COMM</sub>	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	41, 76		-	
Supplier Assessment for Impacts on Society					
G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	-		-	
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	-		-	
Grievance Mechanisms for Impacts on Society					
G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	-		-	
Social: Product Responsibility					
Customer Health and Safety					
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	16		-	
G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	16		-	
Materials Stewardship					
MM11	Programs and progress relating to materials stewardship	-		-	
Product and Service Labeling					
G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	16		-	
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	16		-	
G4-PR5	Results of surveys measuring customer satisfaction	17			

Indicator	Description	Page		External Assurance	Reference/Omission
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Marketing Communications					
G4-PR6	Sale of banned or disputed products			-	None
G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	N/A		-	Marketing communications are not material for a commodity business.
Customer Privacy					
G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	17		-	
Compliance					
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services			-	None

\* COMM = Mining & Metals Sector Specific Commentary



This Sustainability Report was prepared according to the GRI G4 Guidelines at in accordance - core level and completed the Materiality Matters Check by GRI.

For more information, feedback and comments, please contact

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